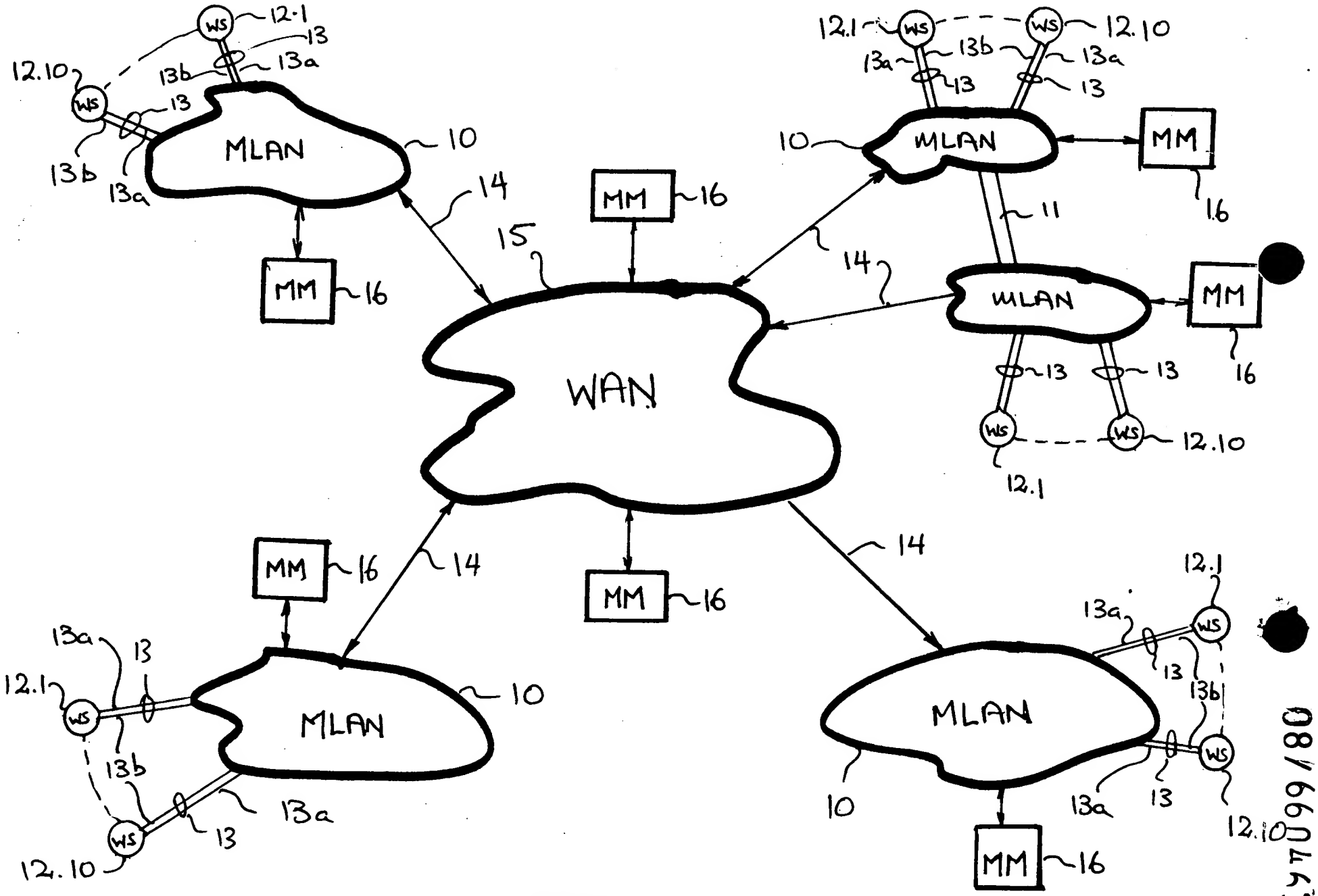


FIGURE 1

I47099/80

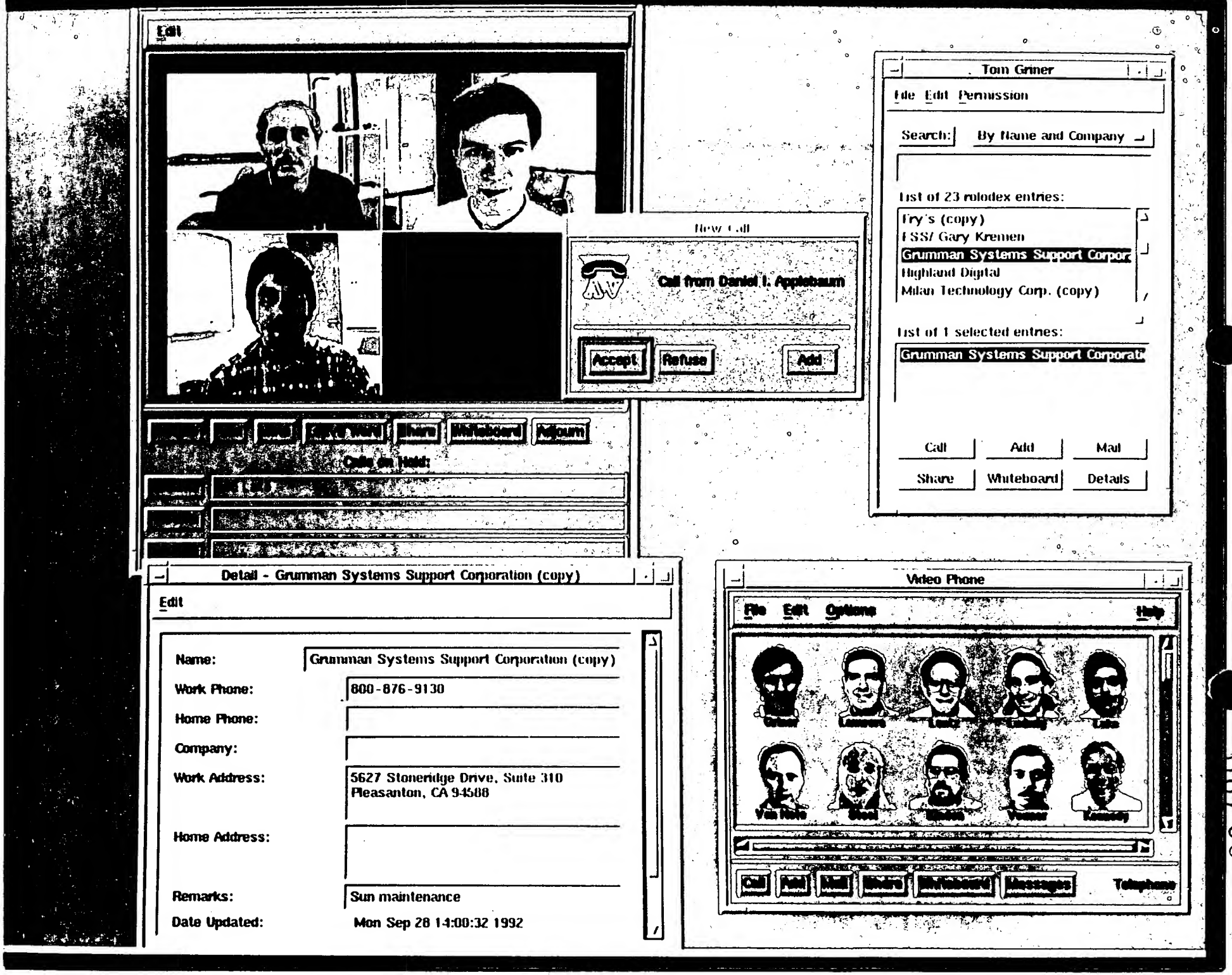


FIGURE 2A

08/669,479

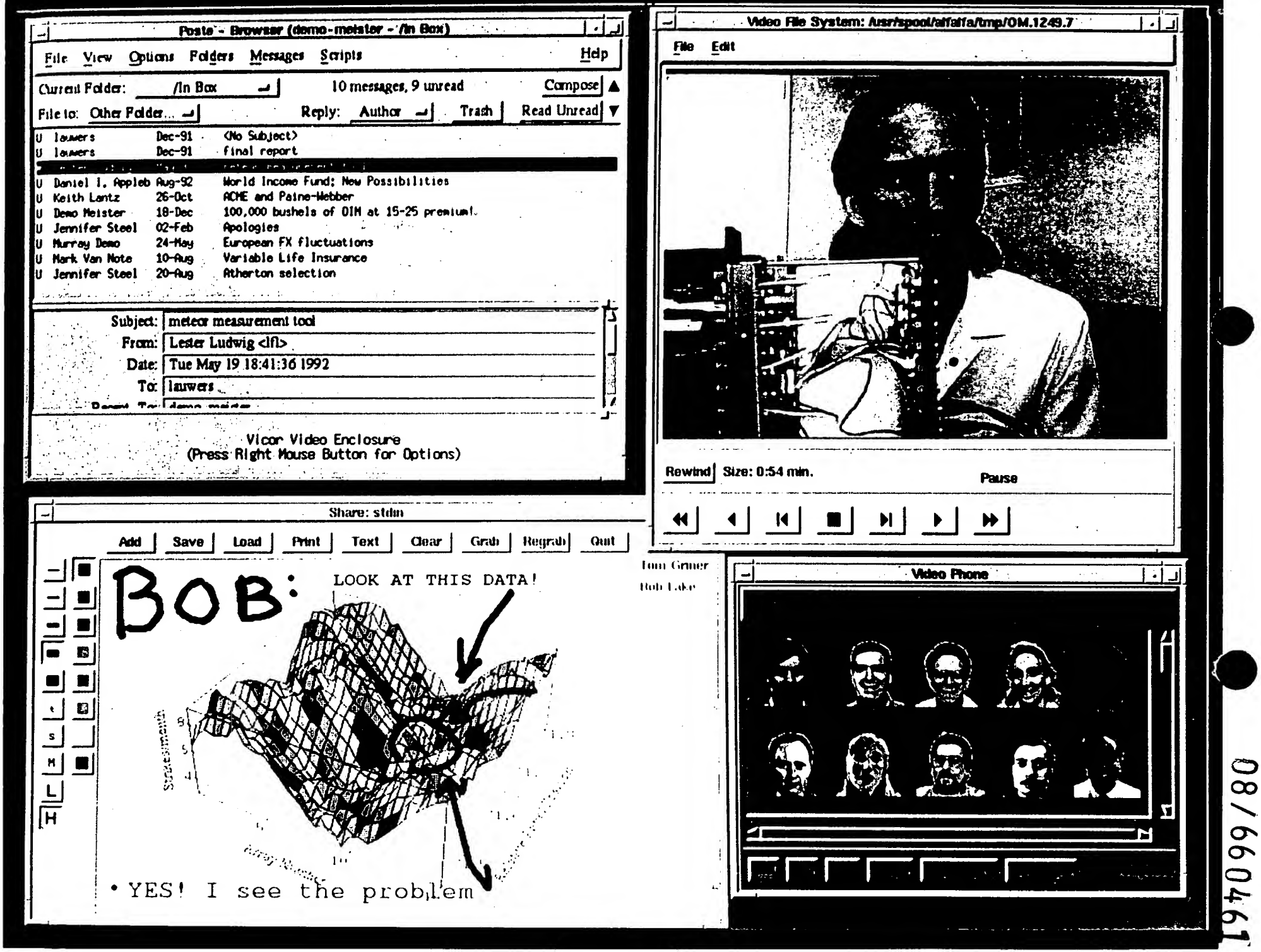


FIGURE 2B

08/990,941

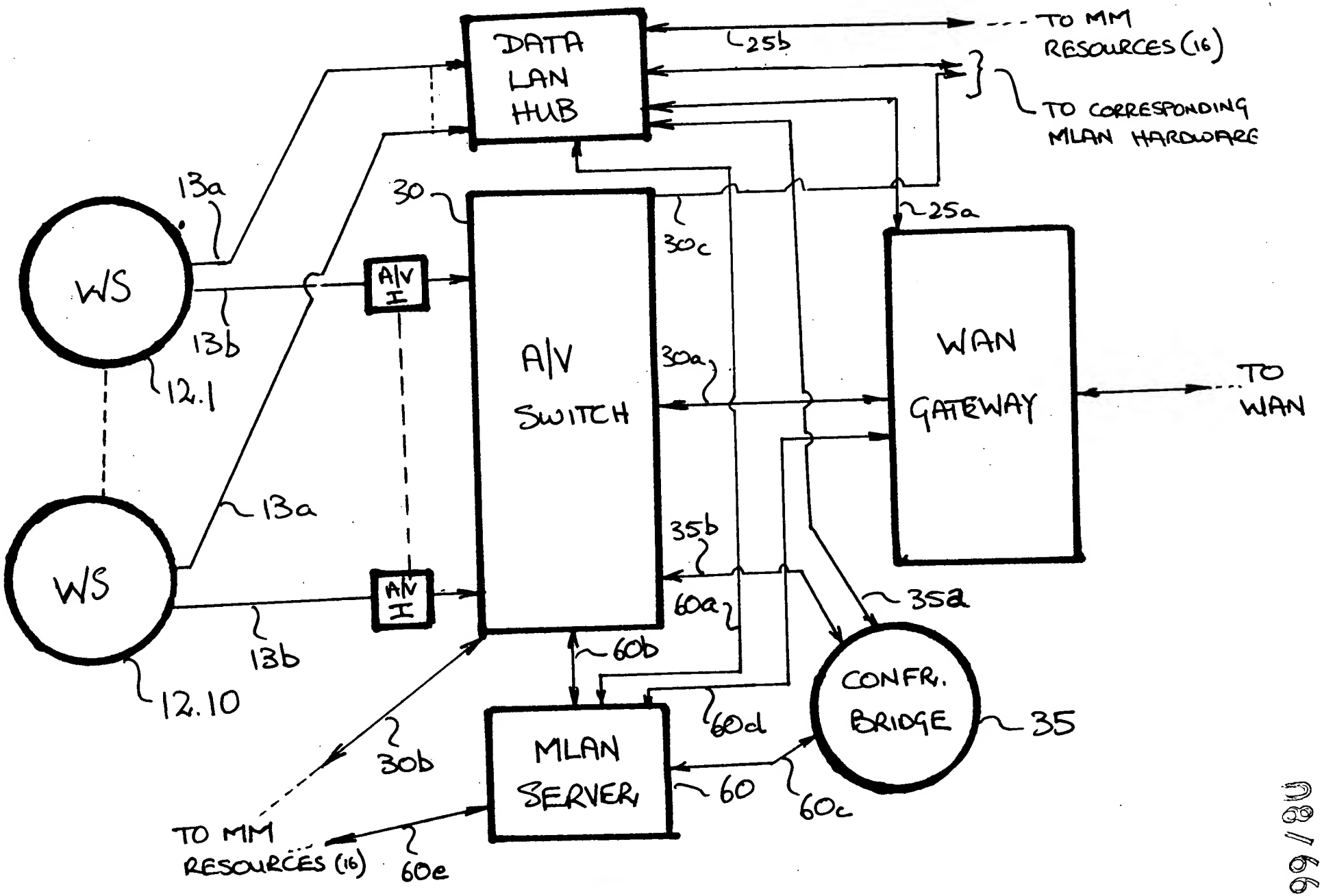


FIGURE 3

EP0699046

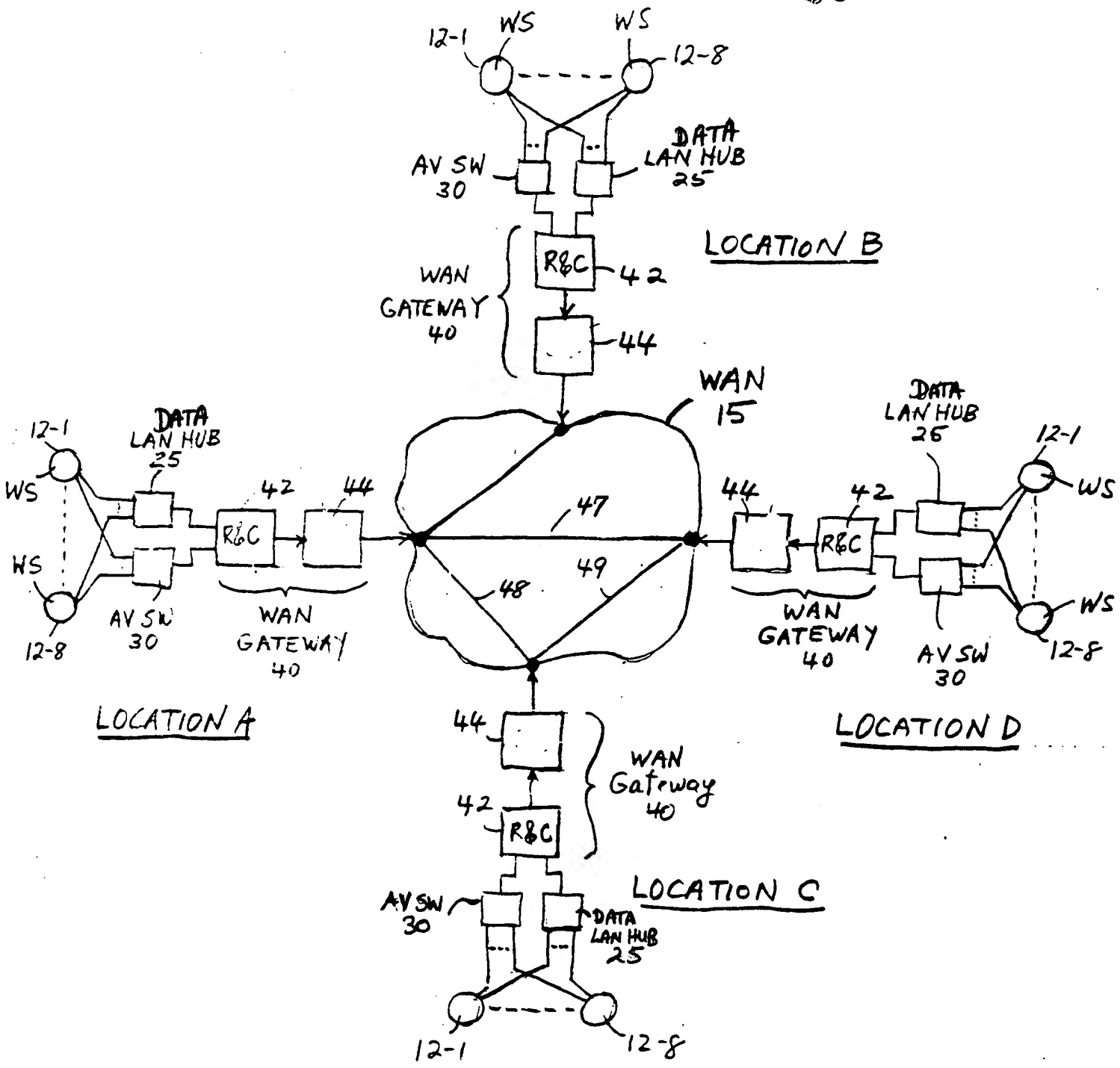

12-1
WS
WS
12-8
DATA LAN HUB 25
AV SW 30
LOCATION B
R&C
42
WAN GATEWAY 40
44
WAN 15
DATA LAN HUB 25
12-1
WS
WS
12-8
AV SW 30
42
R&C
44
WAN GATEWAY 40
47
48
49
44
42
R&C
WAN GATEWAY 40
DATA LAN HUB 26
12-1
WS
WS
12-8
AV SW 30
LOCATION A
LOCATION D
44
WAN Gateway 40
42
R&C
AV SW 30
DATA LAN HUB 25
LOCATION C
12-1
12-8

Fig. 4

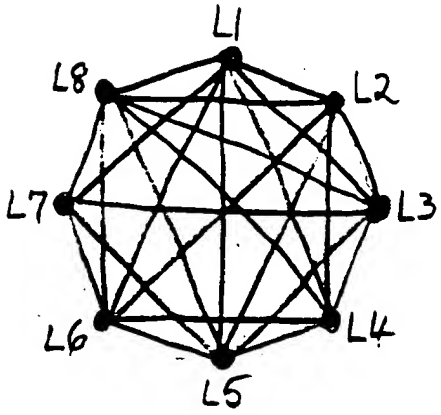


FIG. 5

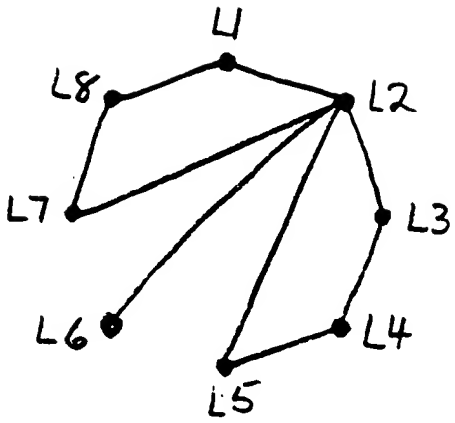


FIG. 6

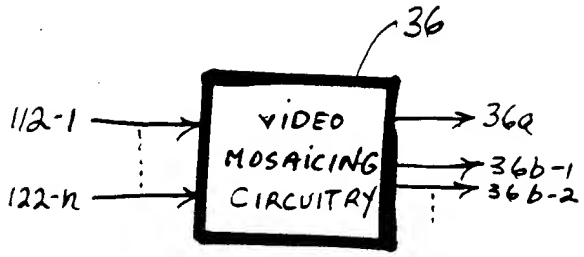


FIG. 7

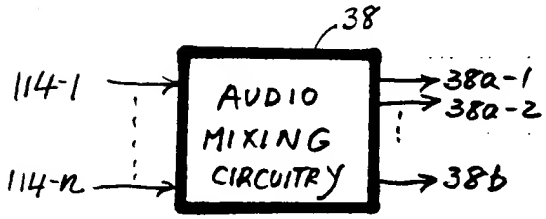


FIG. 9

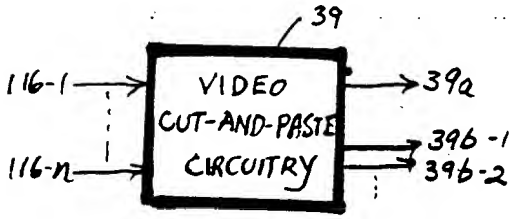


FIG. 10

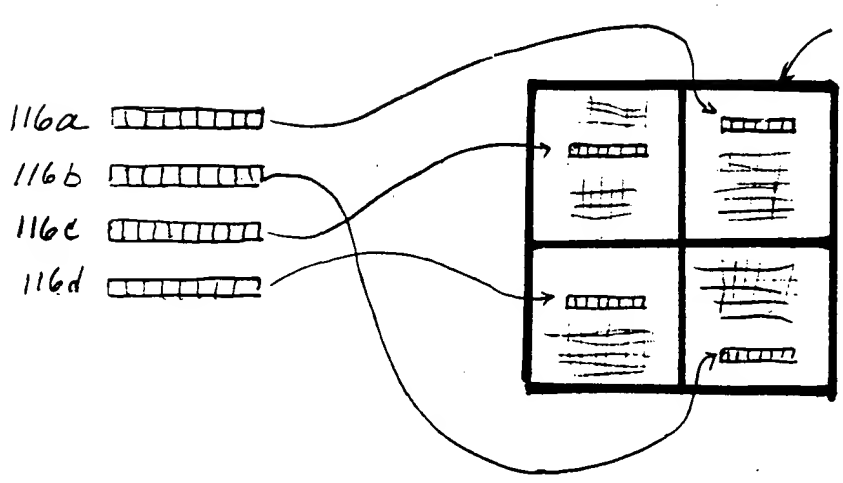


FIG. 11

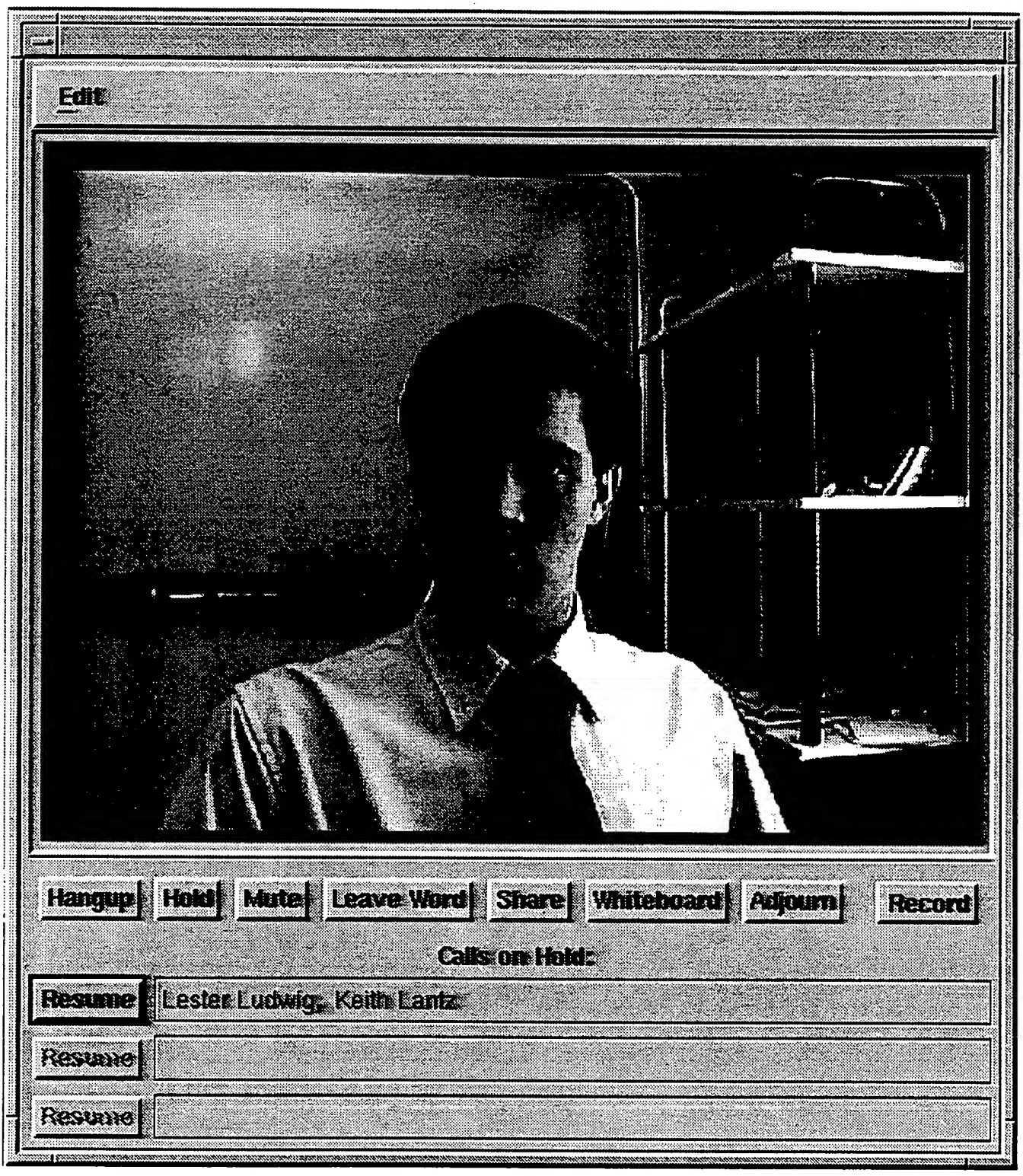

Edit
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Adjourn
Record
Calls on Hold:
Resume
Lester Ludwig, Keith Lantz
Resume
Resume

Fig 8A

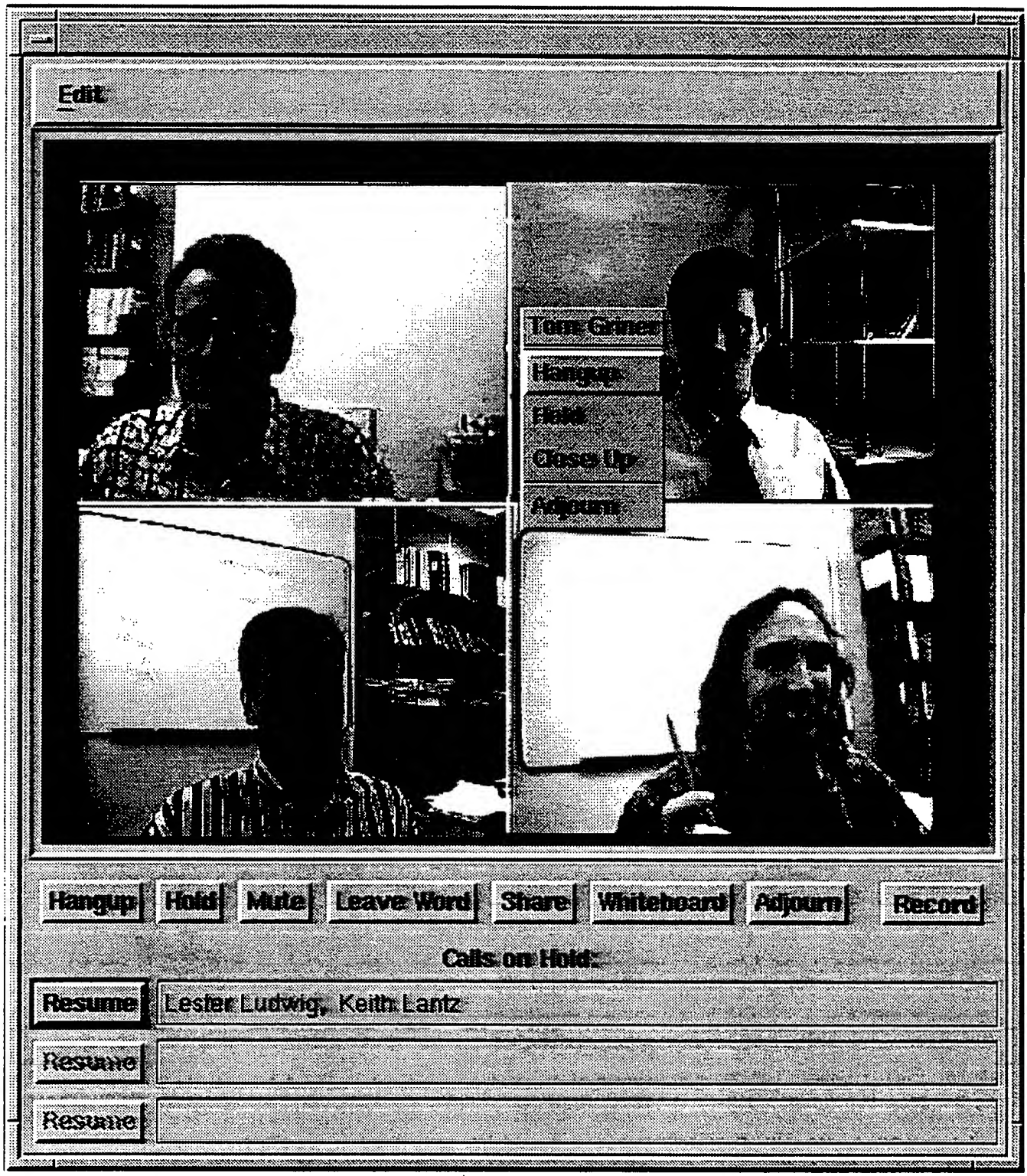

Edit
Tone Control
Hangup
Hold
Close Up
Adjourn
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Adjourn
Record
Calls on Hold:
Resume
Lester Ludwig, Keith Lantz
Resume
Resume

Fig 8B

Edit
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Record
Calls on Hold:
Resume
Lester Ludwig, Keith Lantz
Resume
Resume
maker
wingz
Calculator
pfx
VCR
Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
In Box
Collaboration Initiator
File
Edit
Options
Help
Griner
Lauvers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone

08/669,047

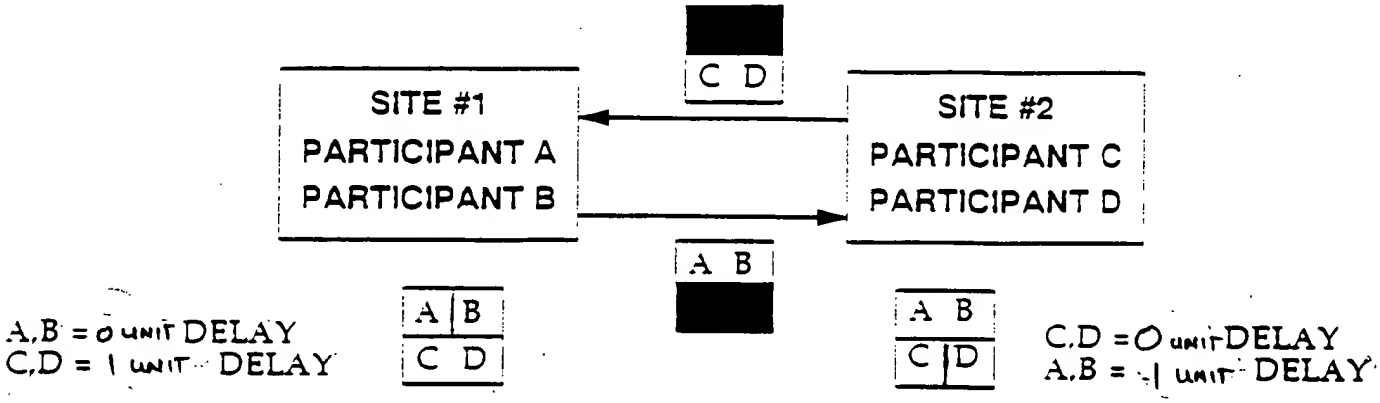
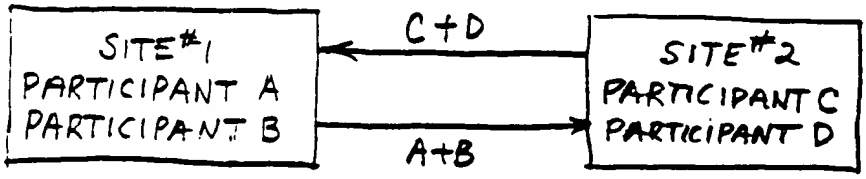


FIGURE 12A



A hears B + C + D
B hears A + C + D

A,B = 0 UNIT DELAY
C,D = 1 UNIT DELAY

C hears A + B + D
D hears A + B + C

C,D = 0 UNIT DELAY
A,B = 1 UNIT DELAY

FIGURE 12B

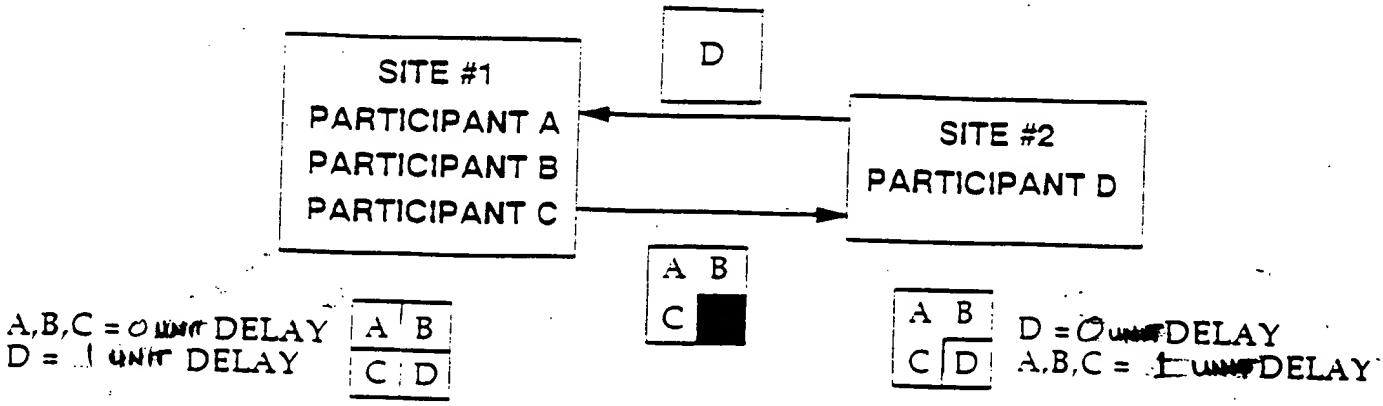


FIGURE 13A

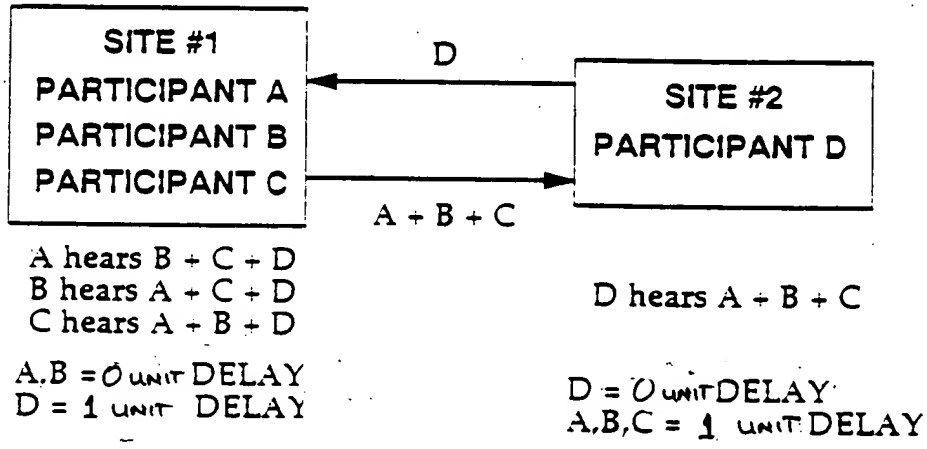


FIGURE 13B

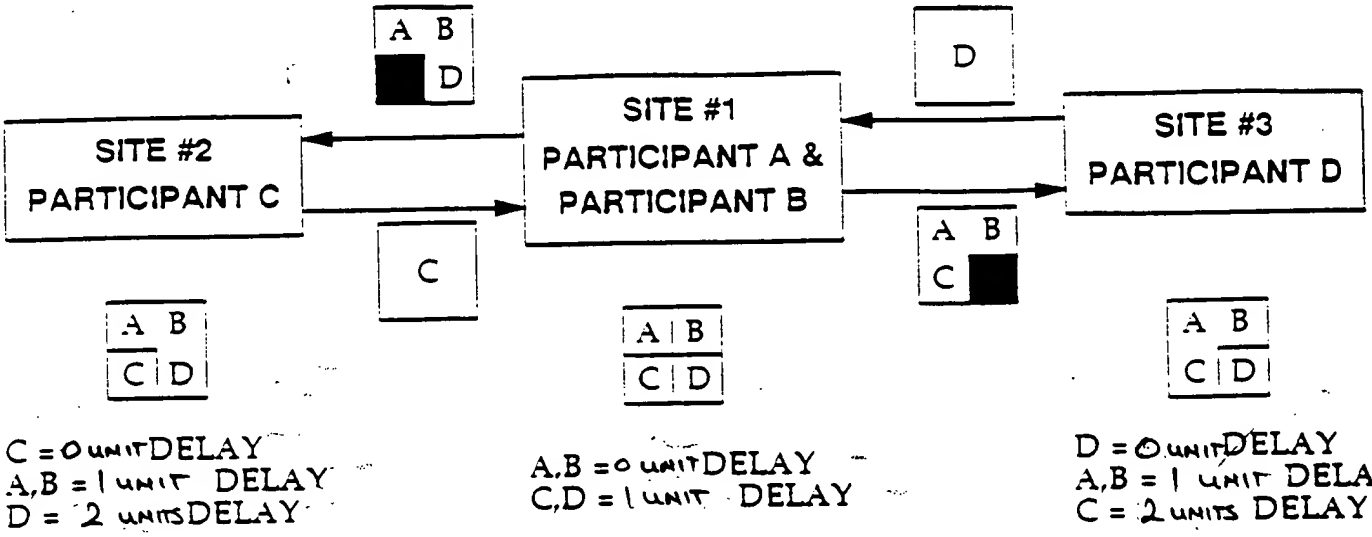


FIGURE 14A

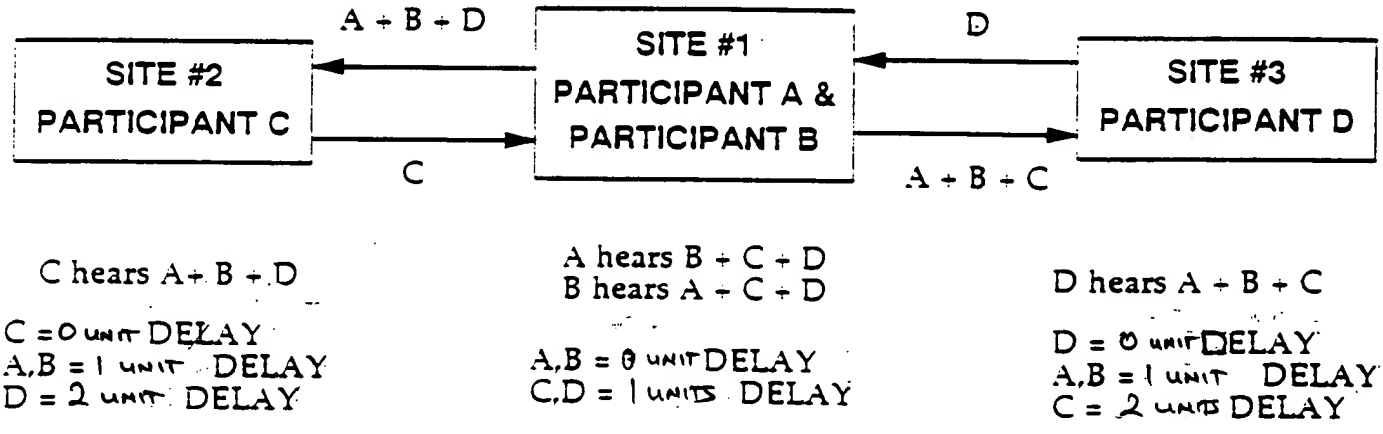


FIGURE 14B

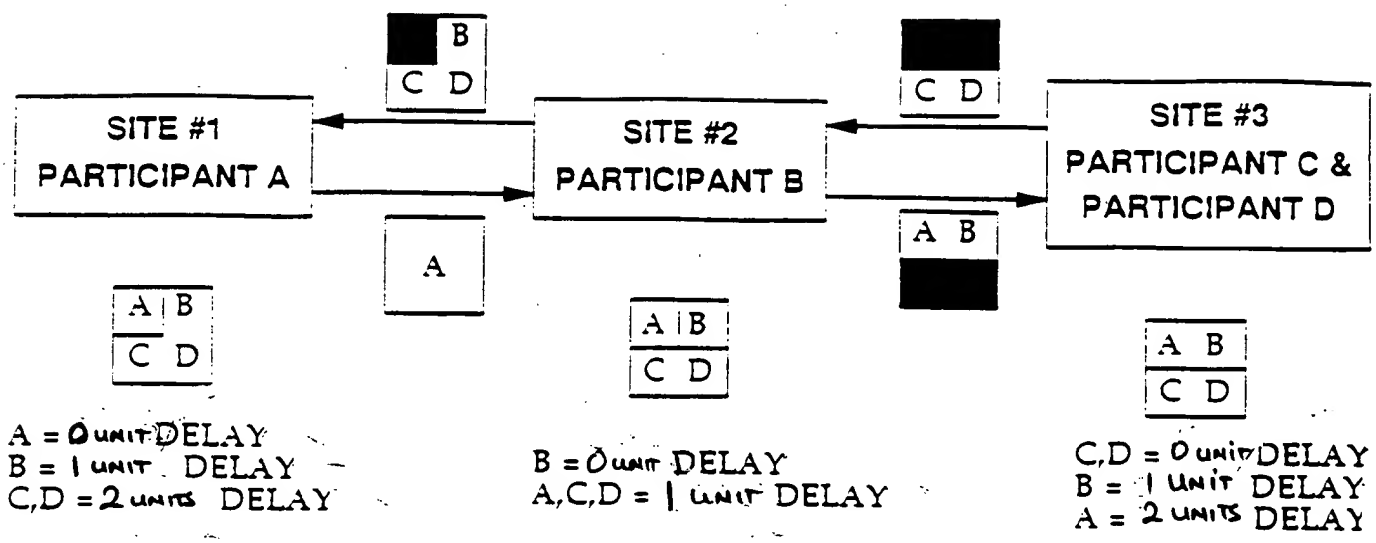


FIGURE 15A

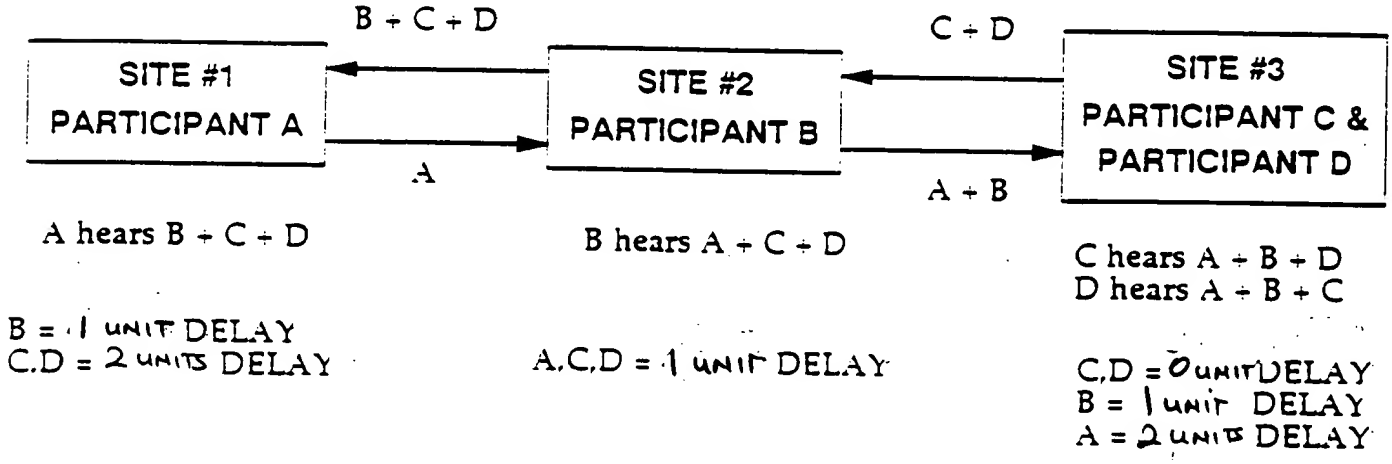


FIGURE 15B

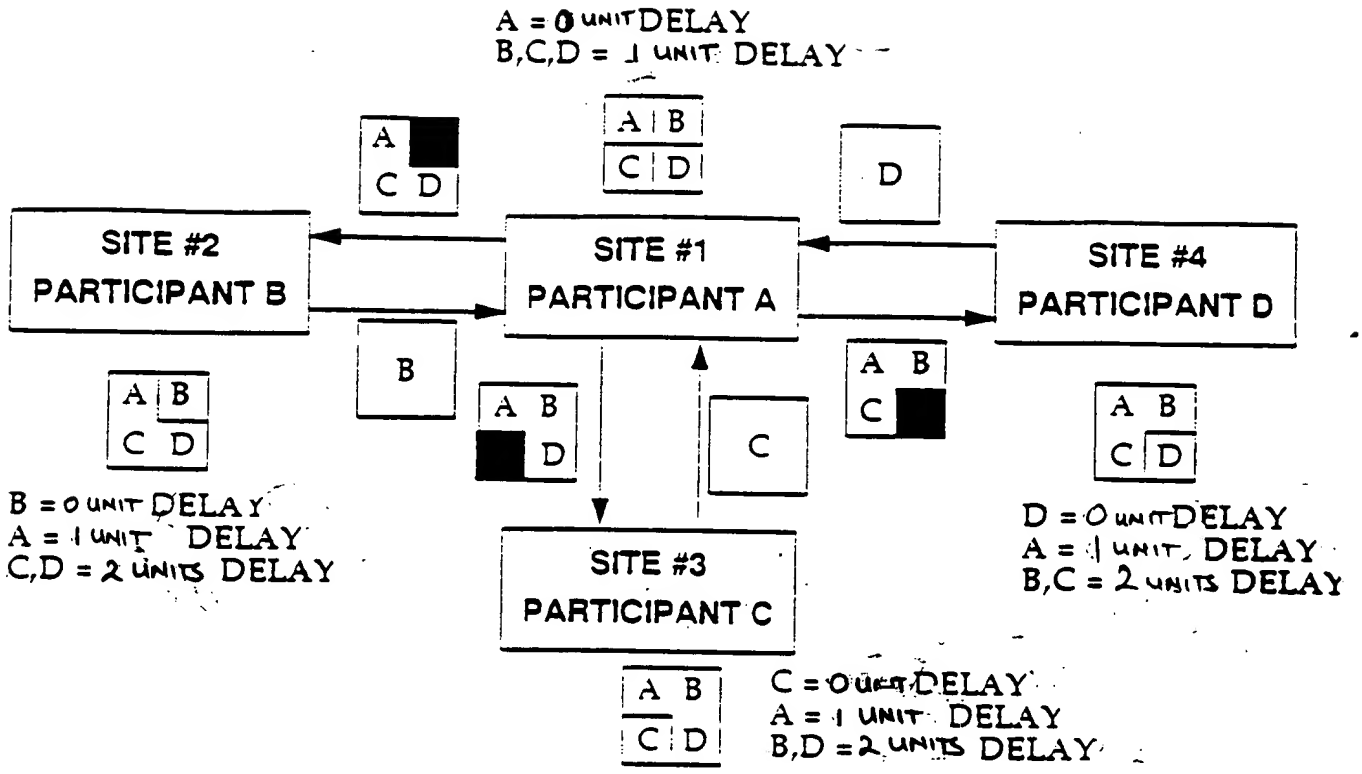

A = 0 UNIT DELAY
B,C,D = 1 UNIT DELAY
A B
C D
A
C D
D
SITE #2
PARTICIPANT B
SITE #1
PARTICIPANT A
SITE #4
PARTICIPANT D
B
A B
C D
A B
D
C
A B
C
A B
C D
B = 0 UNIT DELAY
A = 1 UNIT DELAY
C,D = 2 UNITS DELAY
D = 0 UNIT DELAY
A = 1 UNIT DELAY
B,C = 2 UNITS DELAY
SITE #3
PARTICIPANT C
A B
C D
C = 0 UNIT DELAY
A = 1 UNIT DELAY
B,D = 2 UNITS DELAY

FIGURE 16

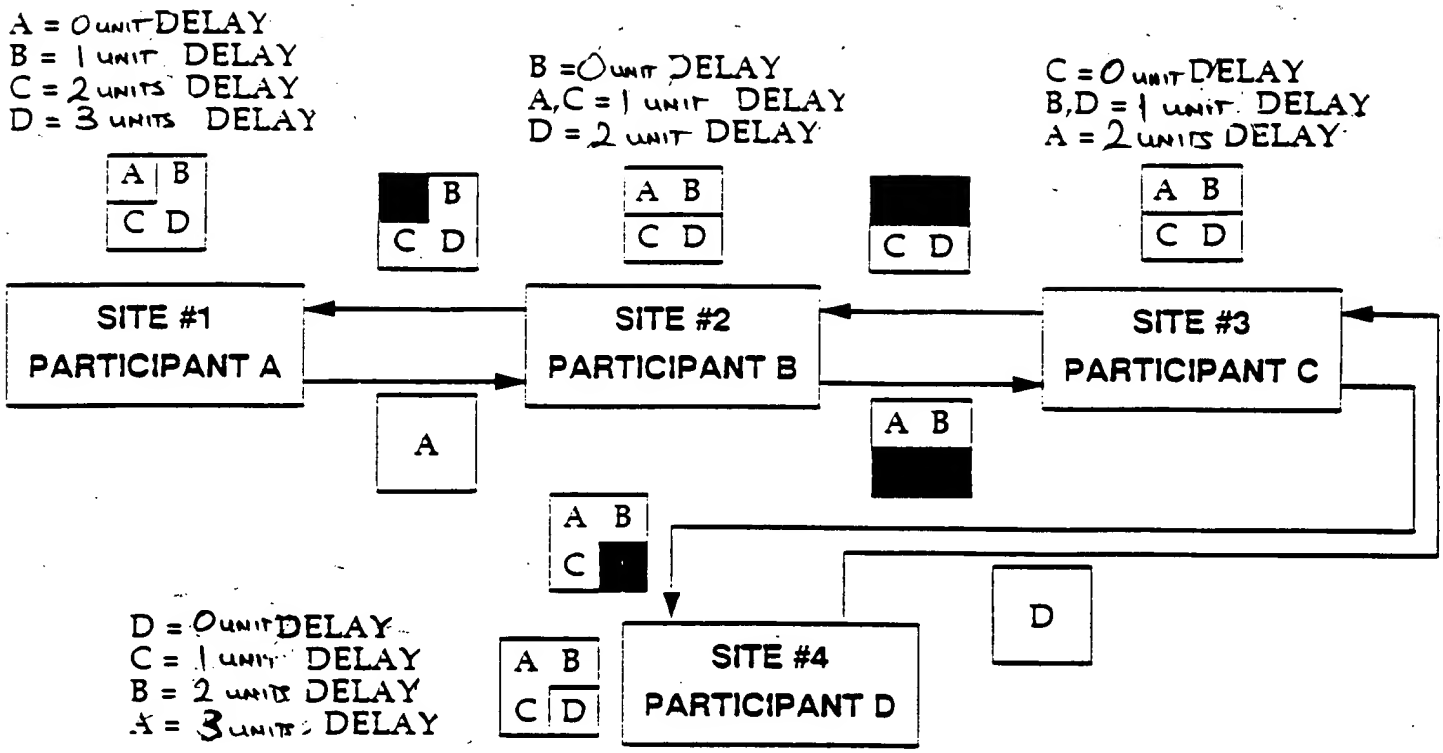


FIGURE 17A

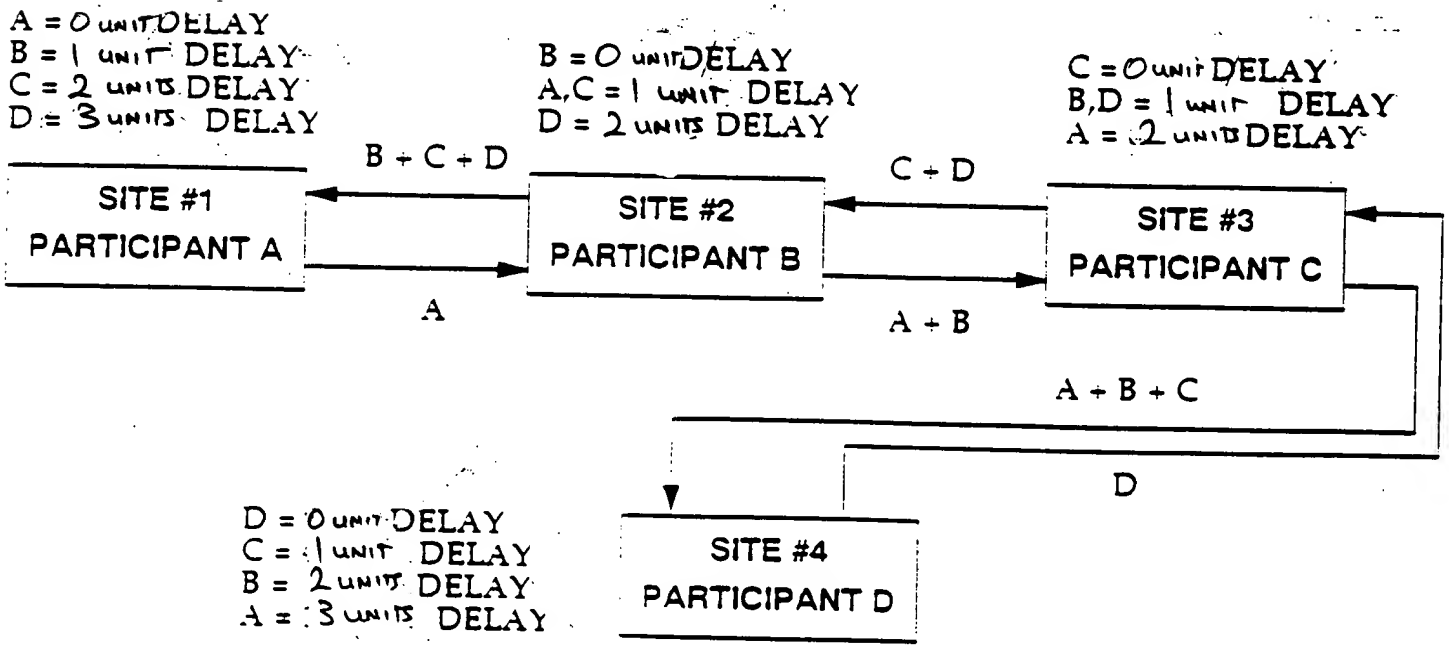


FIGURE 17B

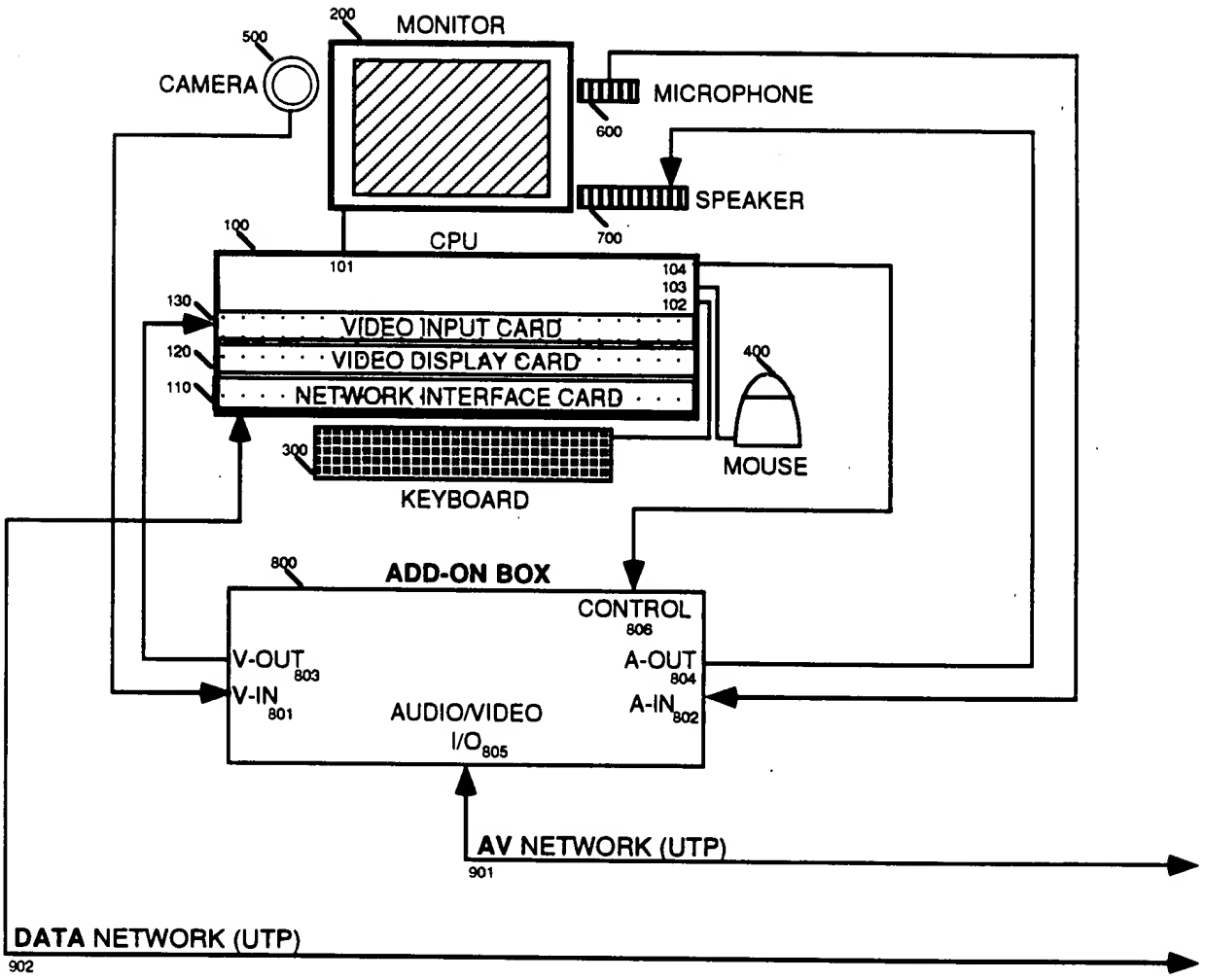

200
MONITOR
500
CAMERA
MICROPHONE
600
SPEAKER
700
100
CPU
101
104
103
102
130
VIDEO INPUT CARD
120
VIDEO DISPLAY CARD
110
NETWORK INTERFACE CARD
400
MOUSE
300
KEYBOARD
800
ADD-ON BOX
CONTROL
806
V-OUT
803
A-OUT
804
V-IN
801
AUDIO/VIDEO
I/O
805
A-IN
802
AV NETWORK (UTP)
901
DATA NETWORK (UTP)
902

Fig. 18A

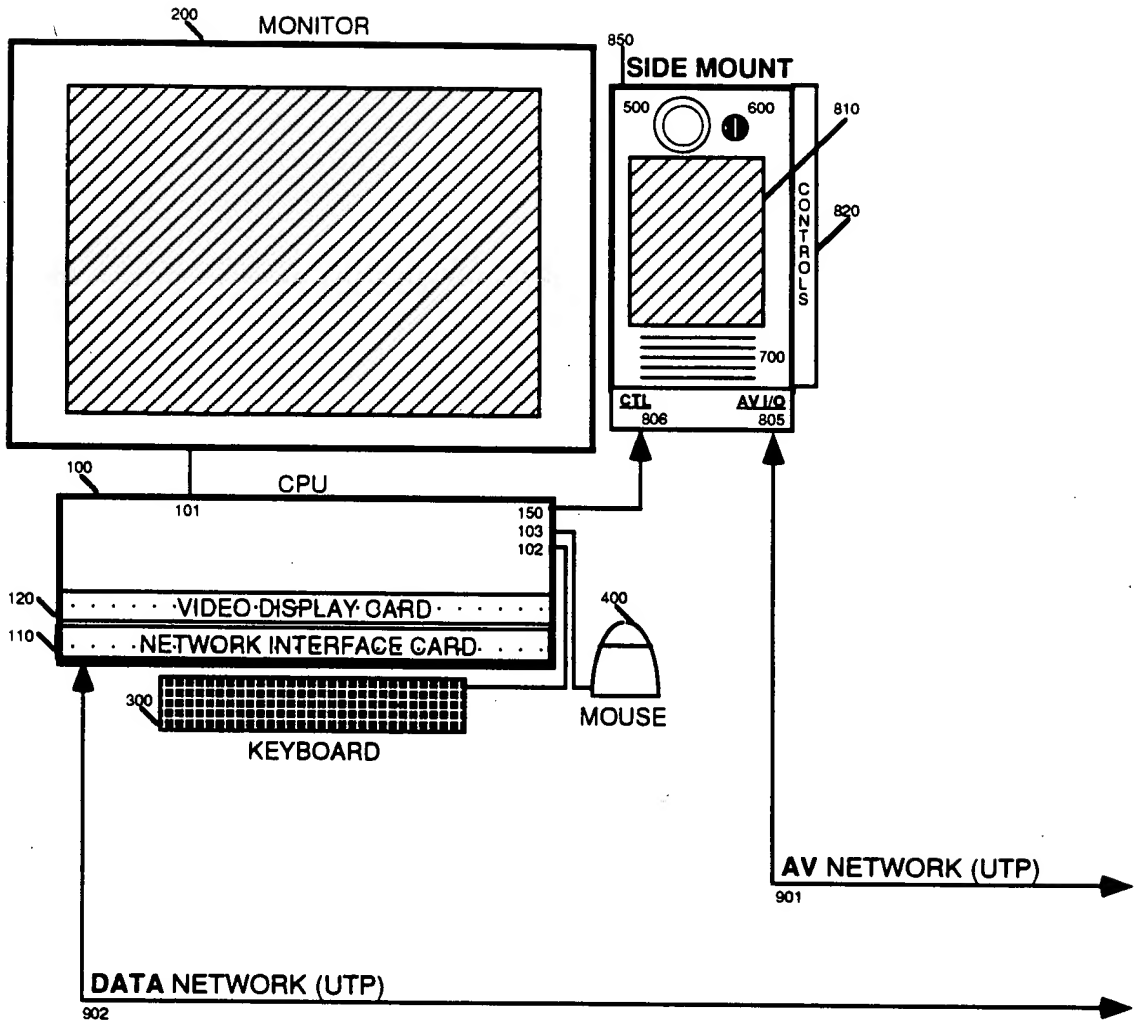

200
MONITOR
850
SIDE MOUNT
500
600
810
820
CONTROLS
700
CTL
806
AV I/O
805
100
CPU
101
150
103
102
120
VIDEO DISPLAY CARD
110
NETWORK INTERFACE CARD
400
300
KEYBOARD
MOUSE
AV NETWORK (UTP)
901
DATA NETWORK (UTP)
902

Fig. 18B

ADD-ON BOX

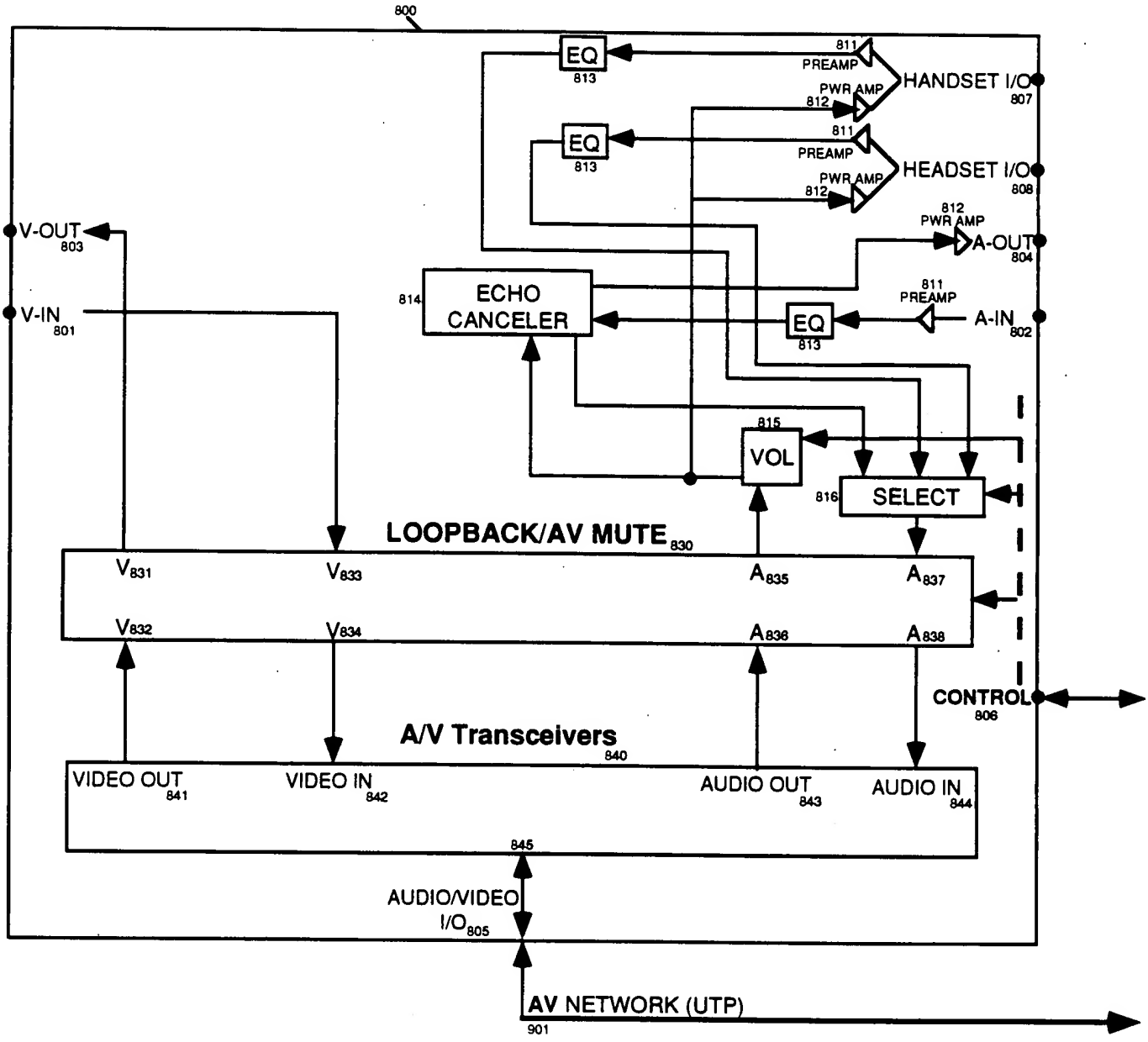


Fig. 19

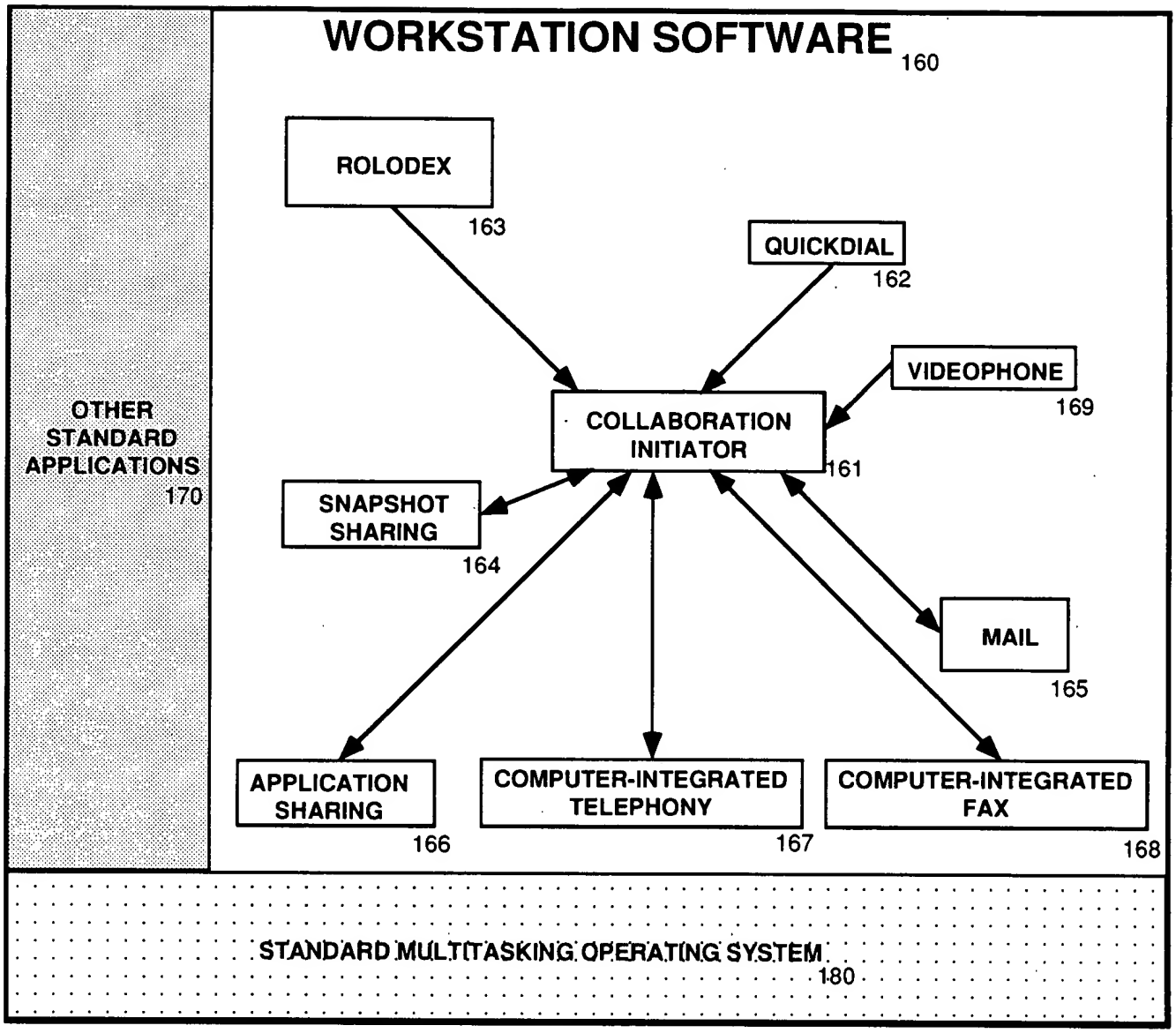

WORKSTATION SOFTWARE
160
ROLODEX
163
QUICKDIAL
162
VIDEOPHONE
169
OTHER STANDARD APPLICATIONS
170
COLLABORATION INITIATOR
161
SNAPSHOT SHARING
164
MAIL
165
APPLICATION SHARING
166
COMPUTER-INTEGRATED TELEPHONY
167
COMPUTER-INTEGRATED FAX
168
STANDARD MULTITASKING OPERATING SYSTEM
180

Fig. 20

08/660461

MLAN SERVER
SOFTWARE MODULES

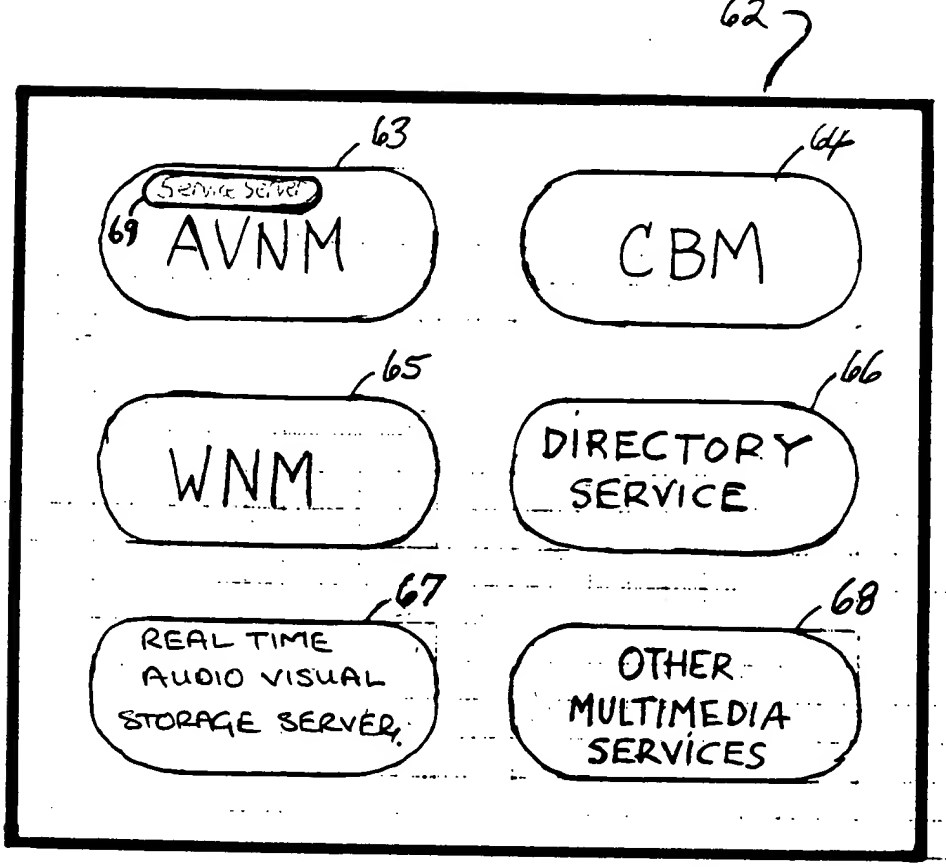


FIG. 21

08/660461

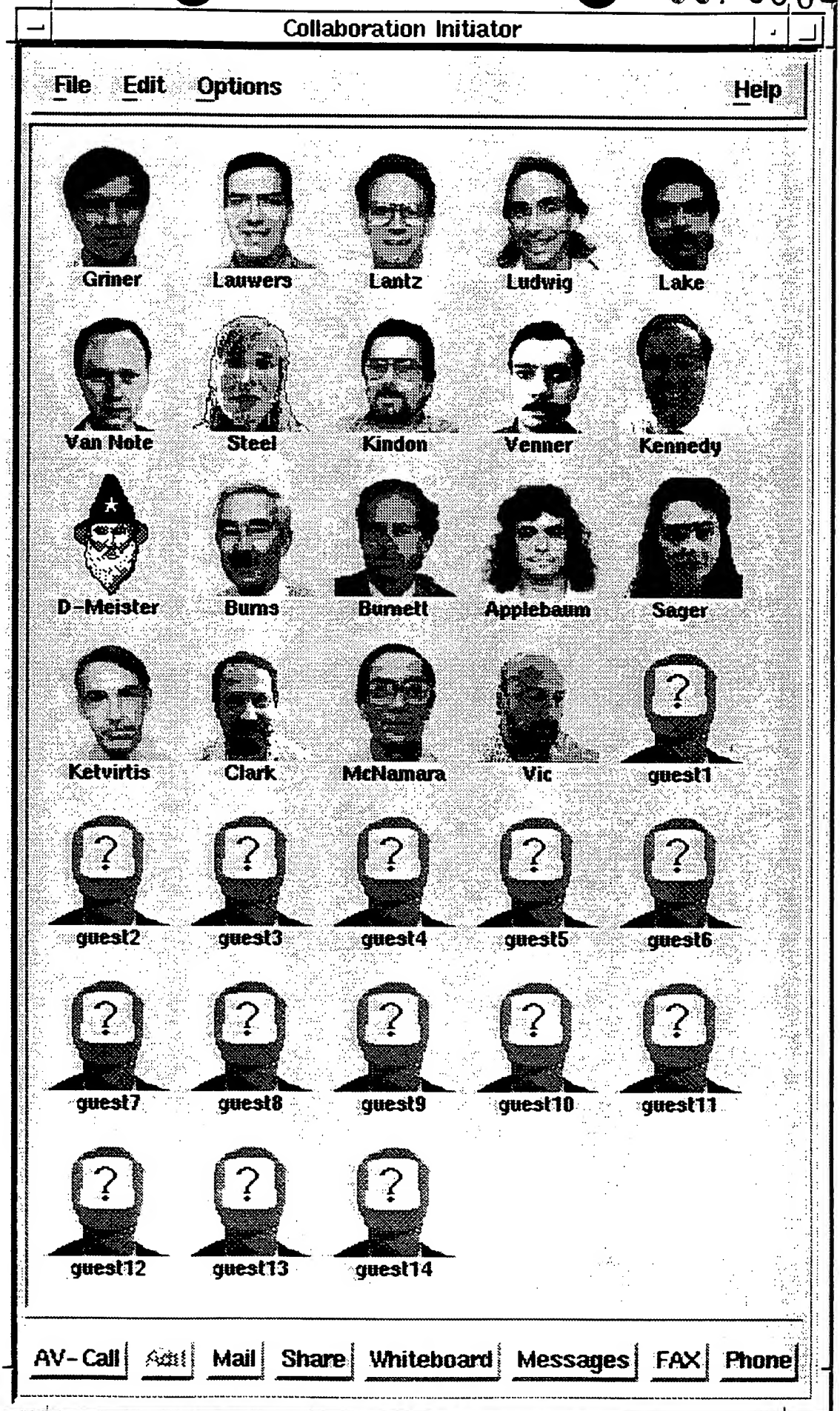


FIG 22

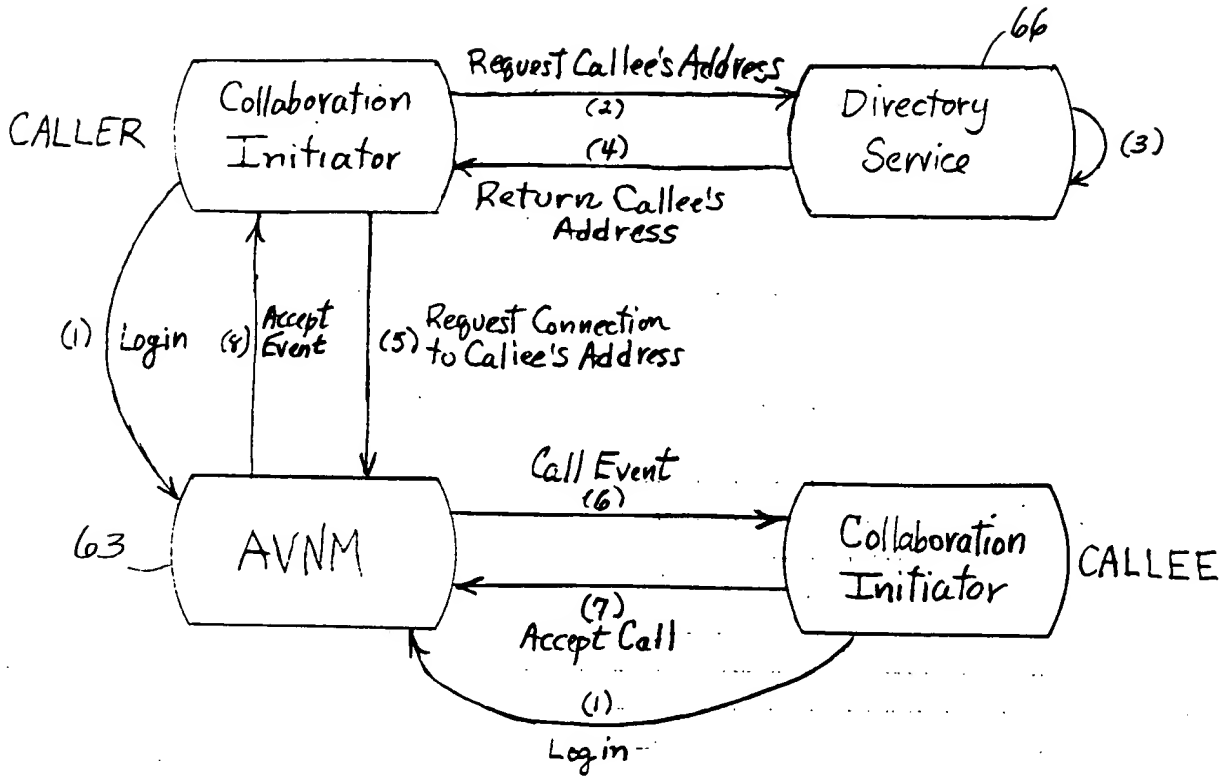

66
Request Callee's Address
(2)
(4)
Return Callee's Address
Collaboration Initiator
CALLER
Directory Service
(3)
(1) Login
(8) Accept Event
(5) Request Connection to Callee's Address
Call Event
(6)
63
AVNM
Collaboration Initiator
CALLEE
(7) Accept Call
(1) Login

FIG. 23

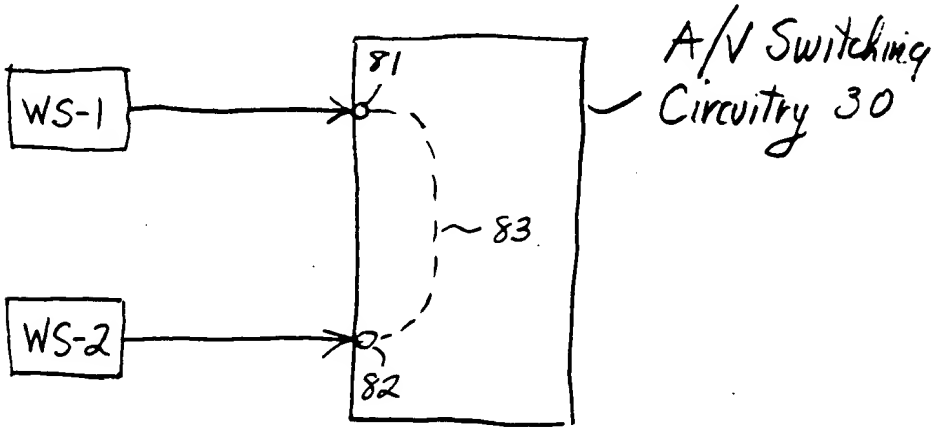

WS-1
WS-2
81
83
82
A/V Switching Circuitry 30

FIG. 24

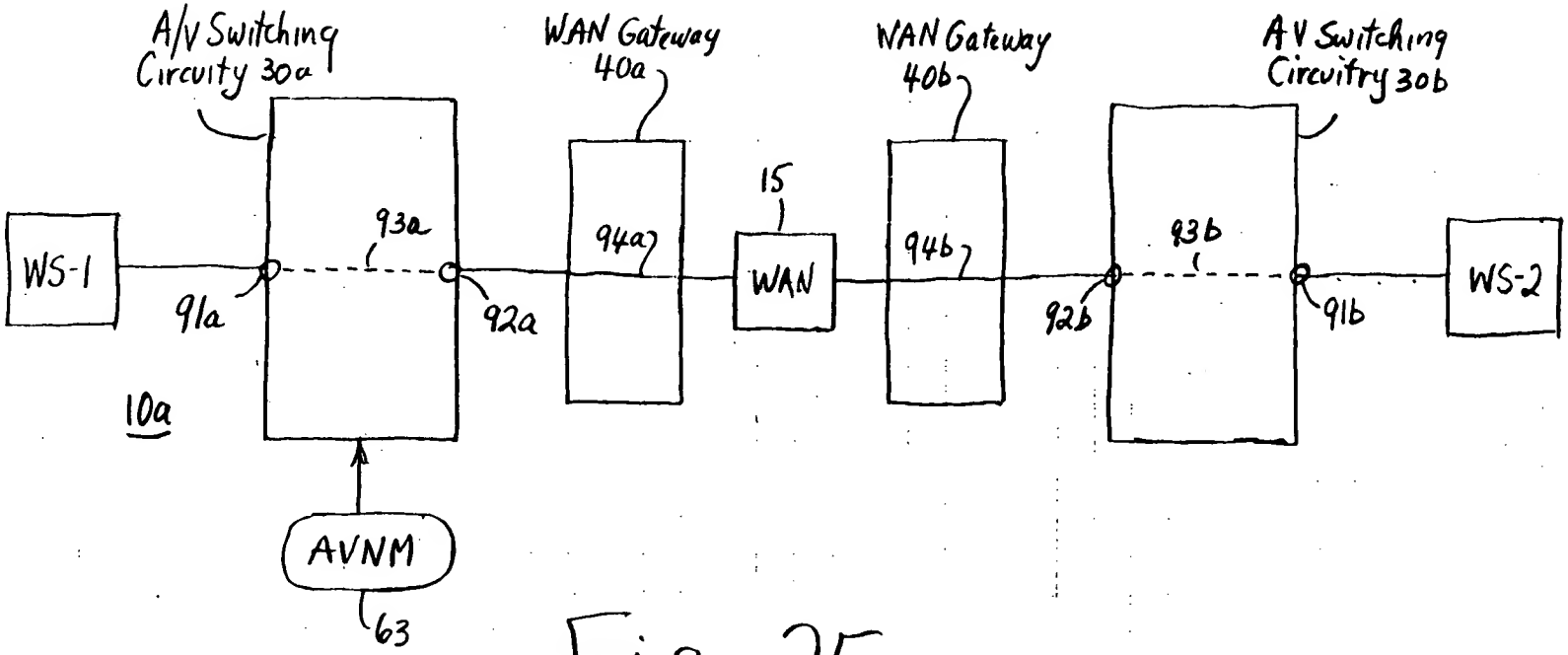


Fig. 25

08/990,471

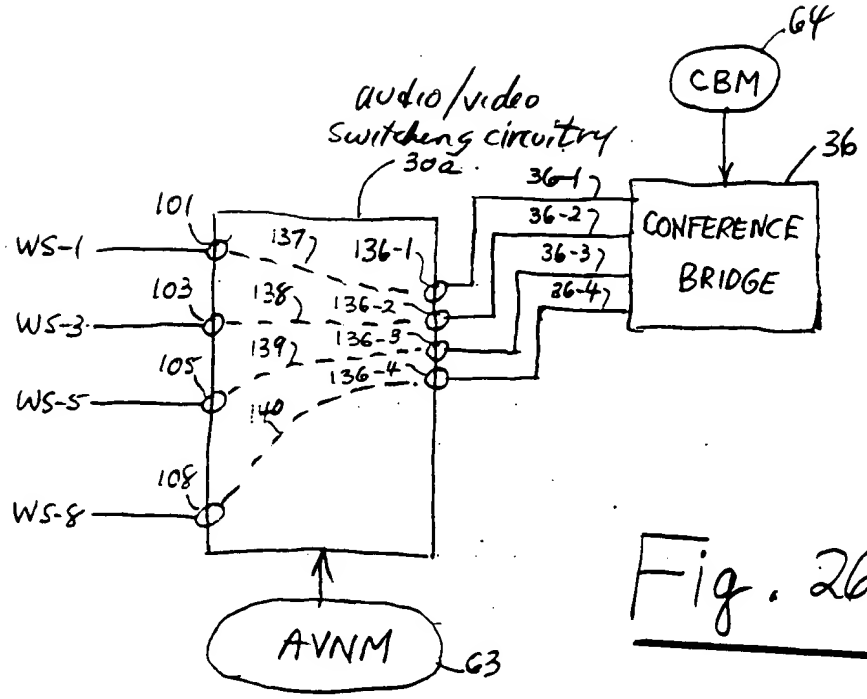

64
CBM
audio/video
switching circuitry
302
36
36-1
36-2
36-3
36-4
CONFERENCE
BRIDGE
101
WS-1
137
136-1
103
WS-3
138
136-2
136-3
105
WS-5
139
136-4
140
108
WS-8
AVNM
63

Fig. 26

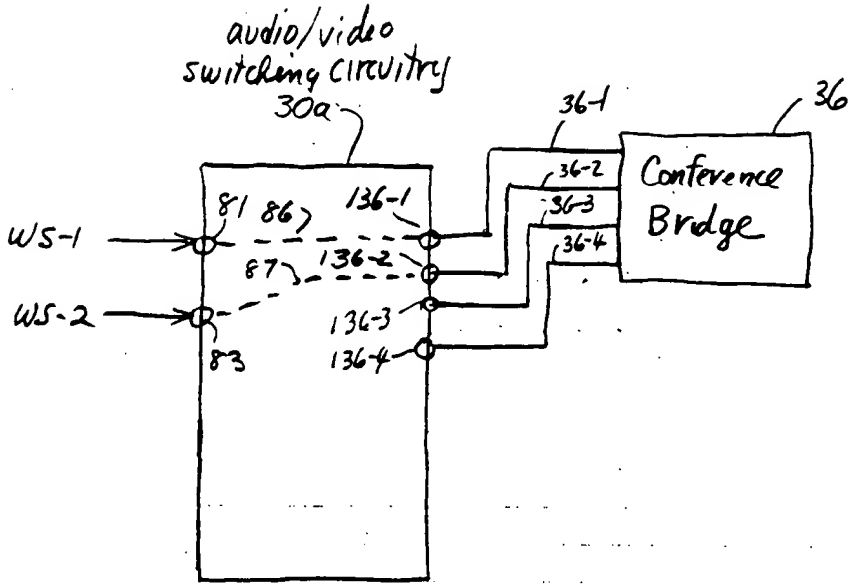

audio/video
switching circuitry
30a
36-1
36
Conference
Bridge
36-2
36-3
36-4
81
86
87
136-1
136-2
136-3
136-4
83
WS-1
WS-2

FIG. 27

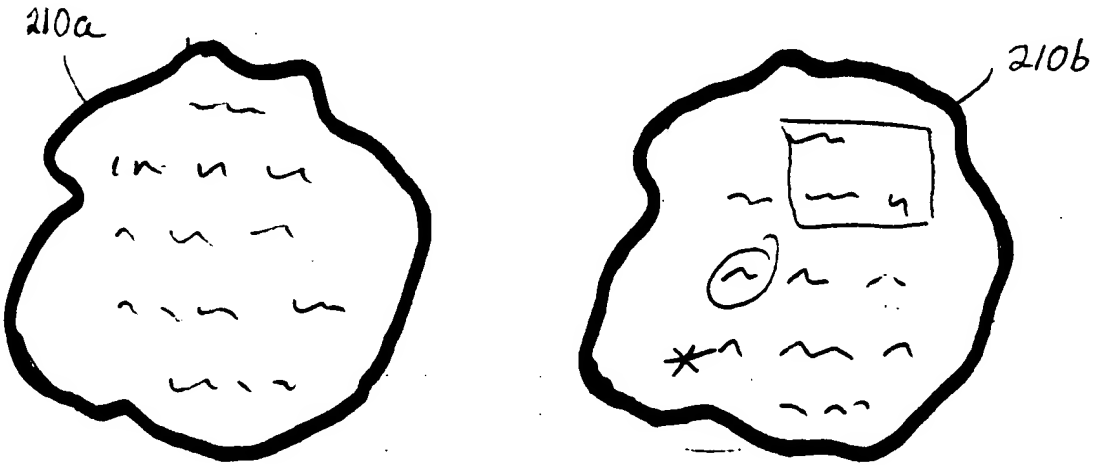


FIGURE 28

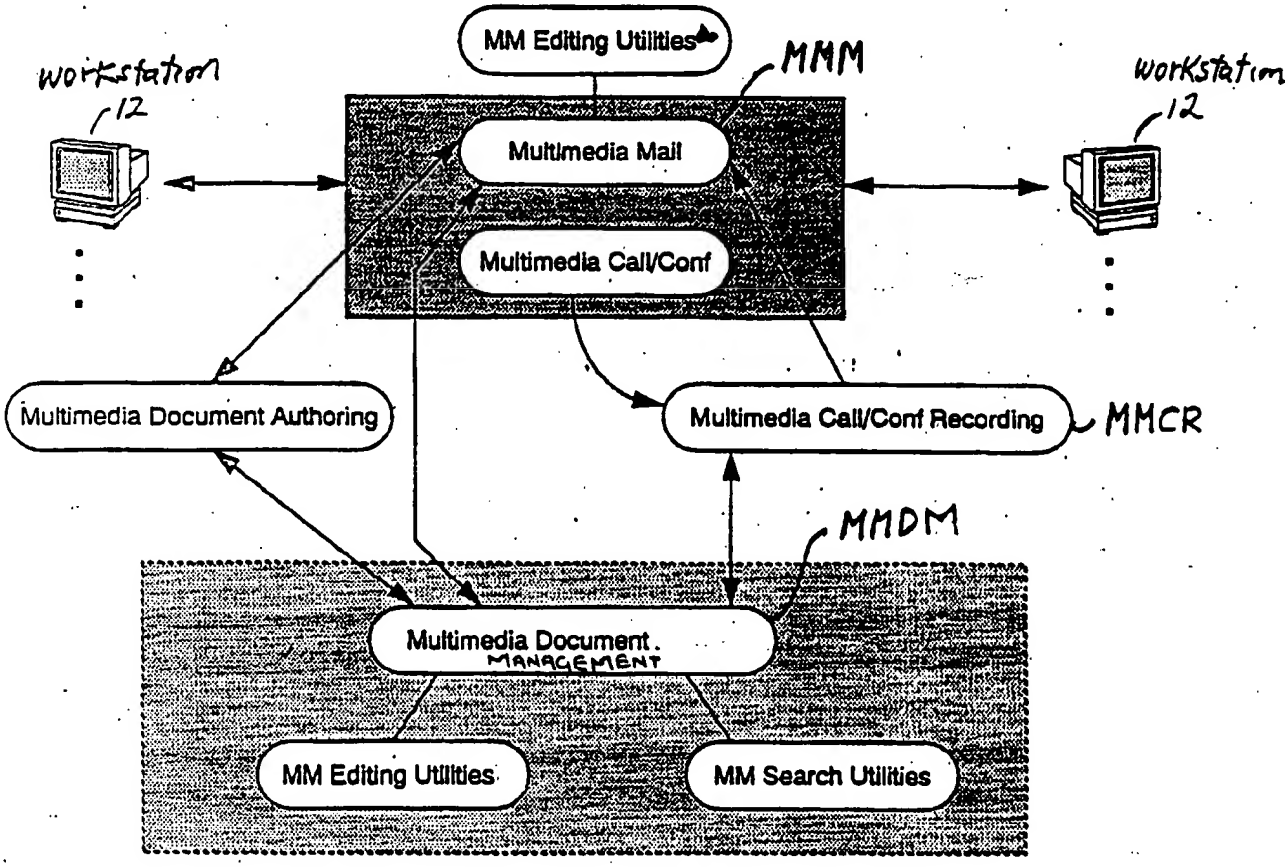


FIGURE 29

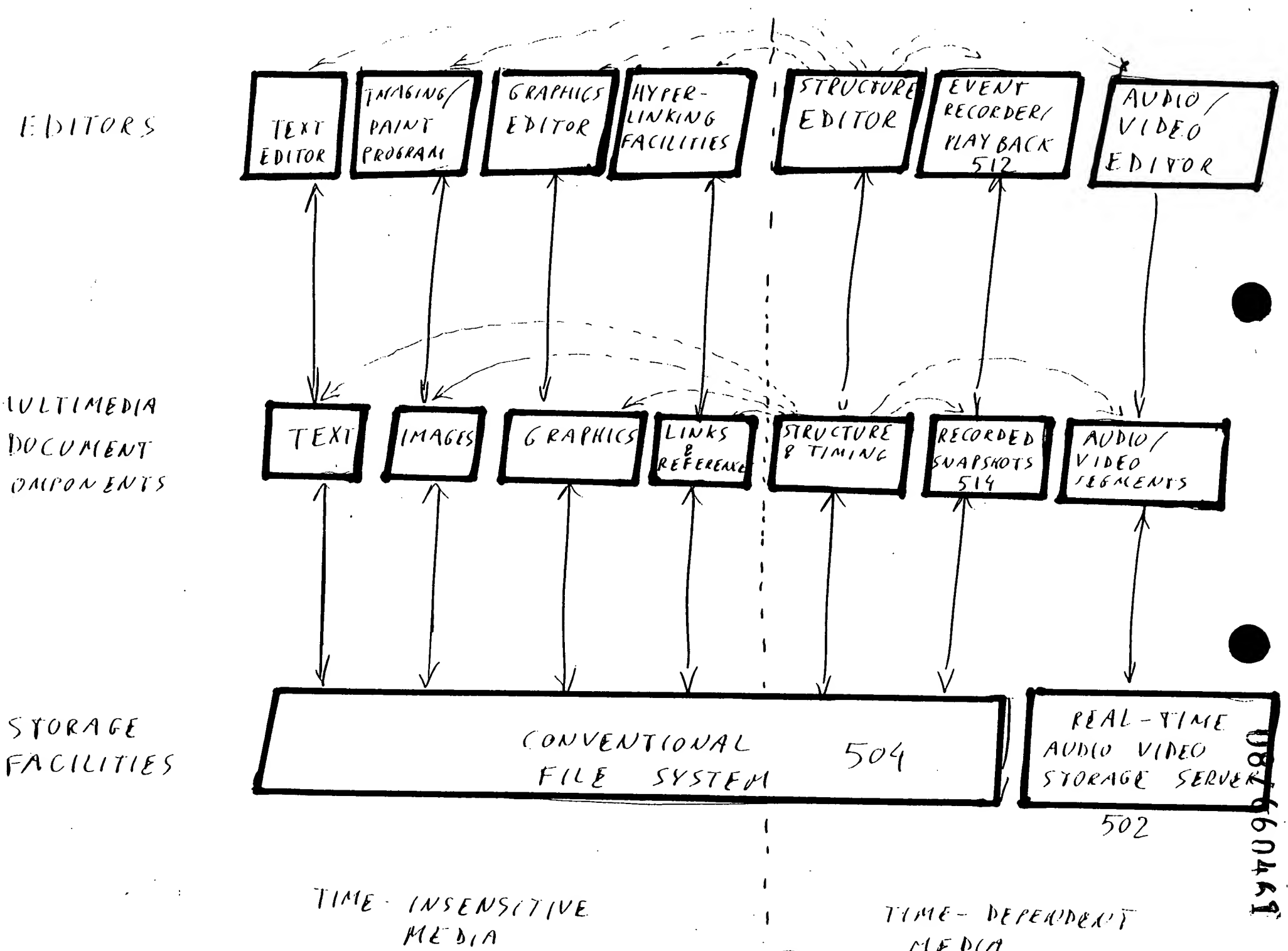

EDITORS
TEXT EDITOR
IMAGING/ PAINT PROGRAM
GRAPHICS EDITOR
HYPER-LINKING FACILITIES
STRUCTURE EDITOR
EVENT RECORDER/ PLAY BACK 512
AUDIO/ VIDEO EDITOR
MULTIMEDIA DOCUMENT COMPONENTS
TEXT
IMAGES
GRAPHICS
LINKS & REFERENCE
STRUCTURE & TIMING
RECORDED SNAPSHOTS 514
AUDIO/ VIDEO SEGMENTS
STORAGE FACILITIES
CONVENTIONAL FILE SYSTEM 504
REAL-TIME AUDIO VIDEO STORAGE SERVER 502
TIME-INSENSITIVE MEDIA
TIME-DEPENDENT MEDIA
U.S. 6,470,380

FIGURE 30

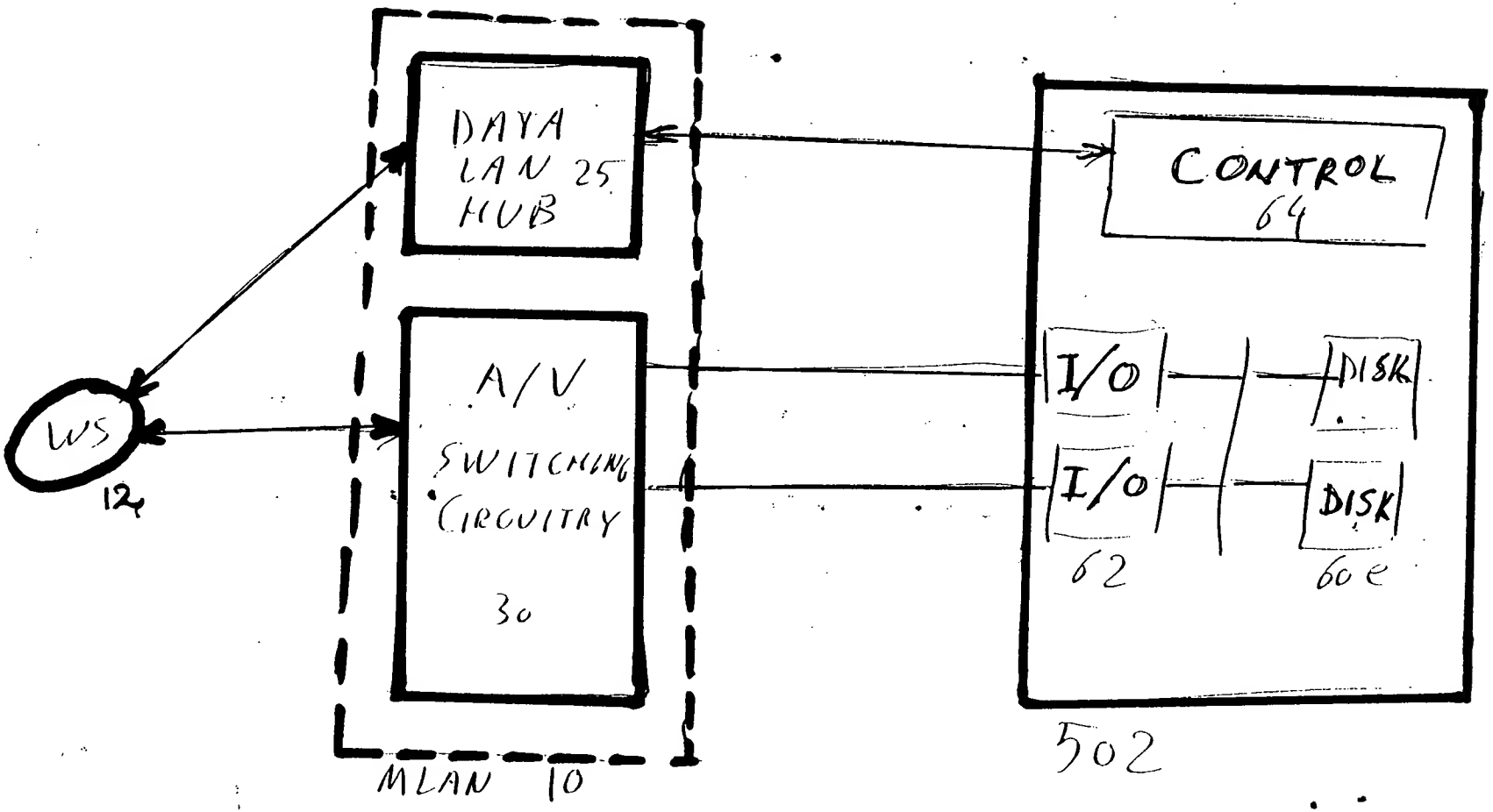


FIGURE 31A

08/660461

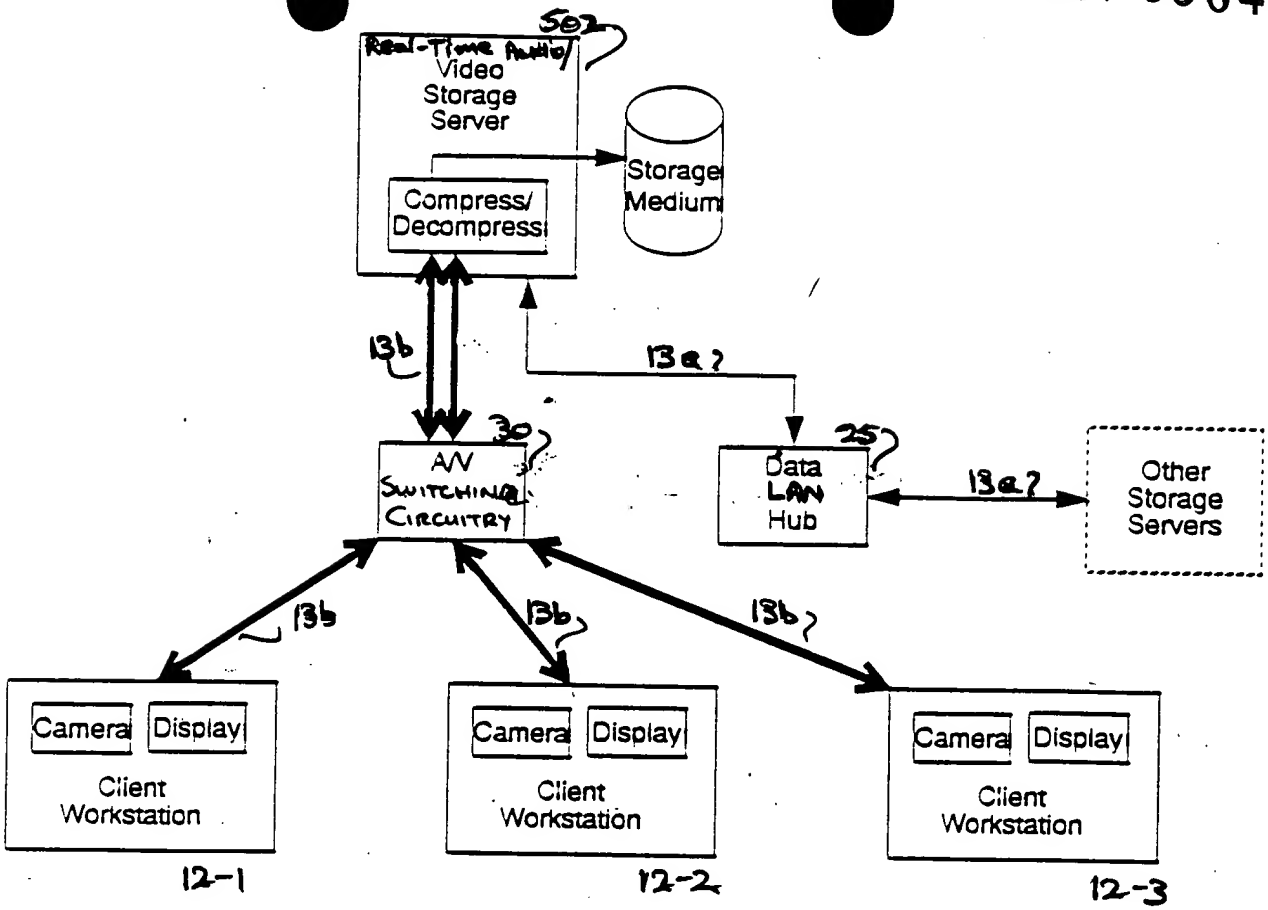


FIGURE 31B

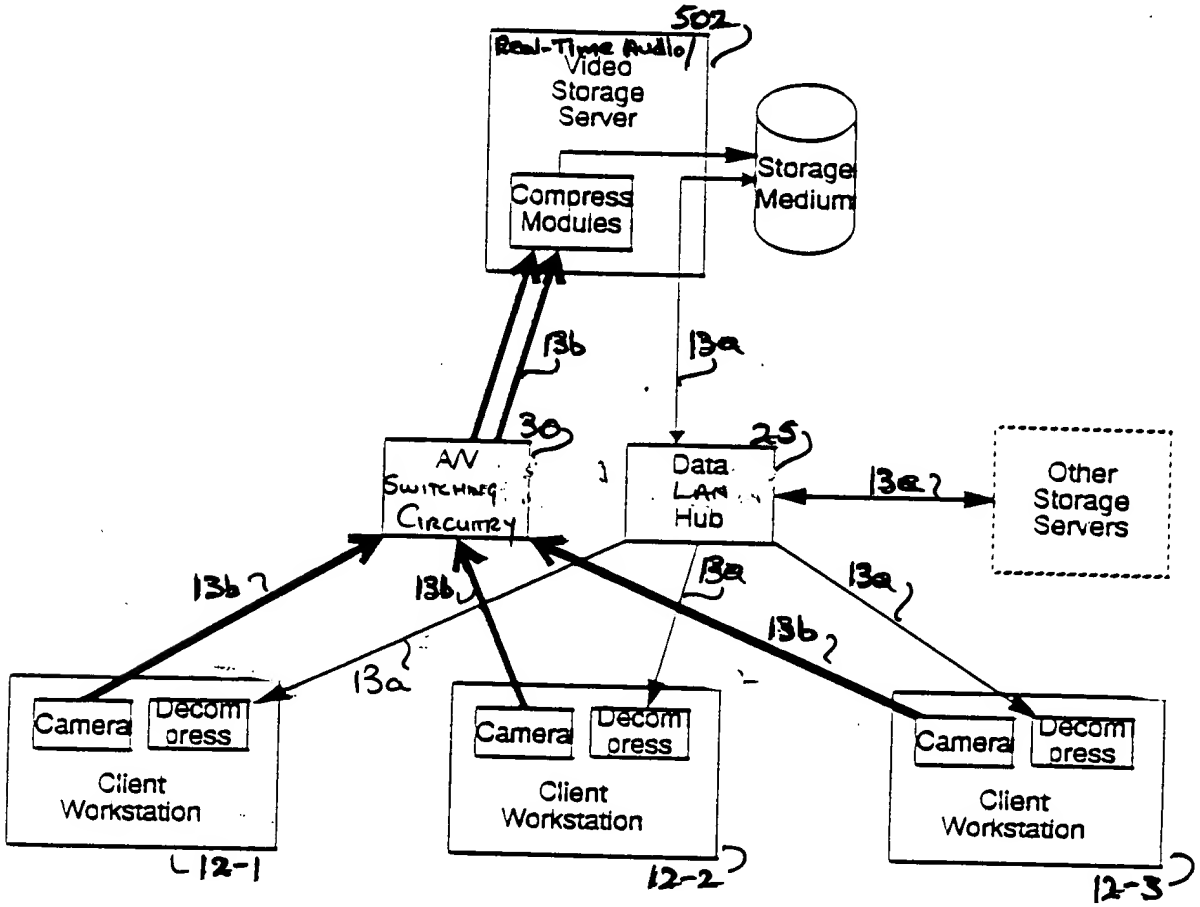


FIGURE 31C

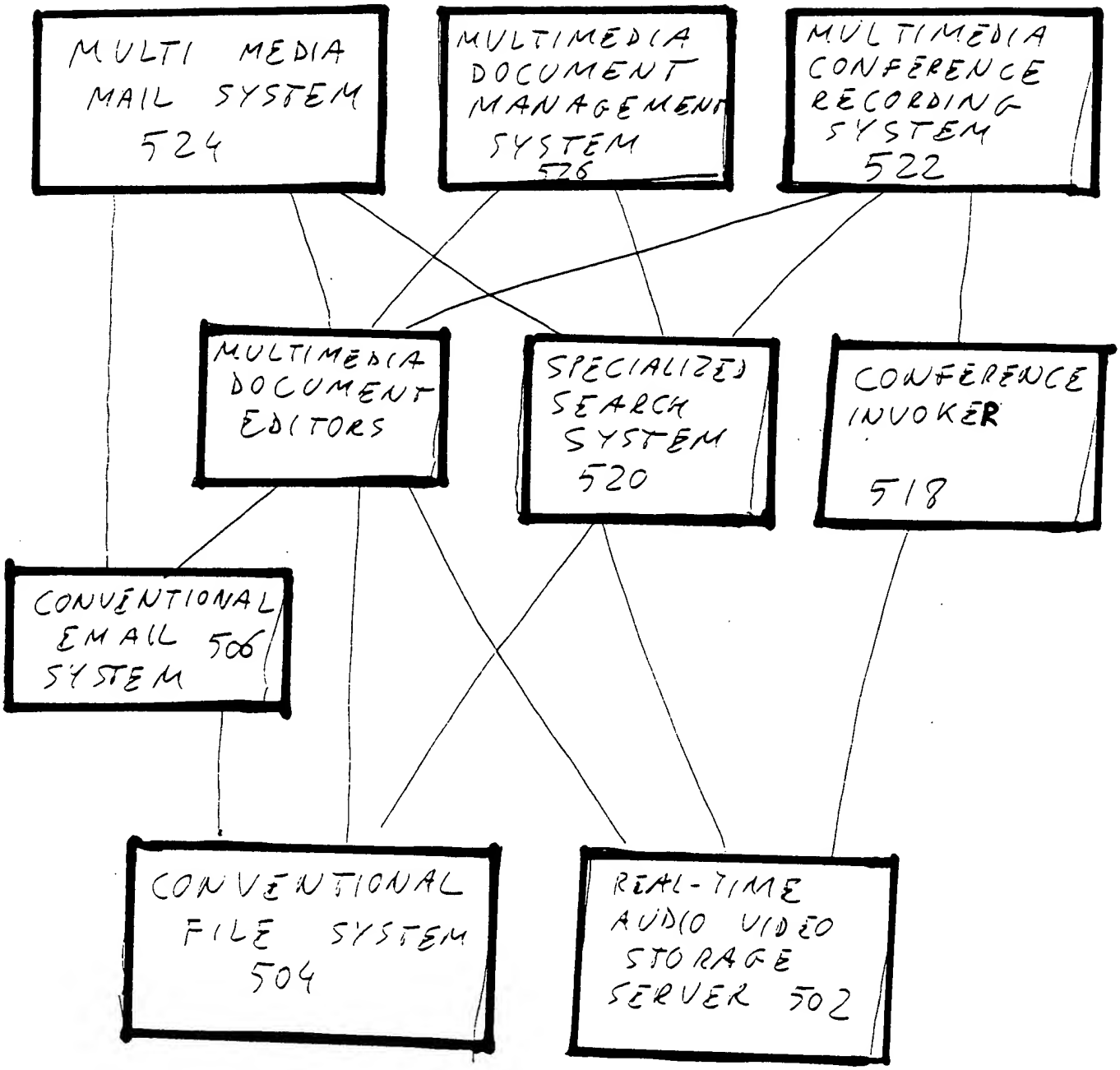

MULTI MEDIA MAIL SYSTEM 524
MULTIMEDIA DOCUMENT MANAGEMENT SYSTEM 526
MULTIMEDIA CONFERENCE RECORDING SYSTEM 522
MULTIMEDIA DOCUMENT EDITORS
SPECIALIZED SEARCH SYSTEM 520
CONFERENCE INVOKER 518
CONVENTIONAL EMAIL SYSTEM 506
CONVENTIONAL FILE SYSTEM 504
REAL-TIME AUDIO VIDEO STORAGE SERVER 502

FIGURE 31D

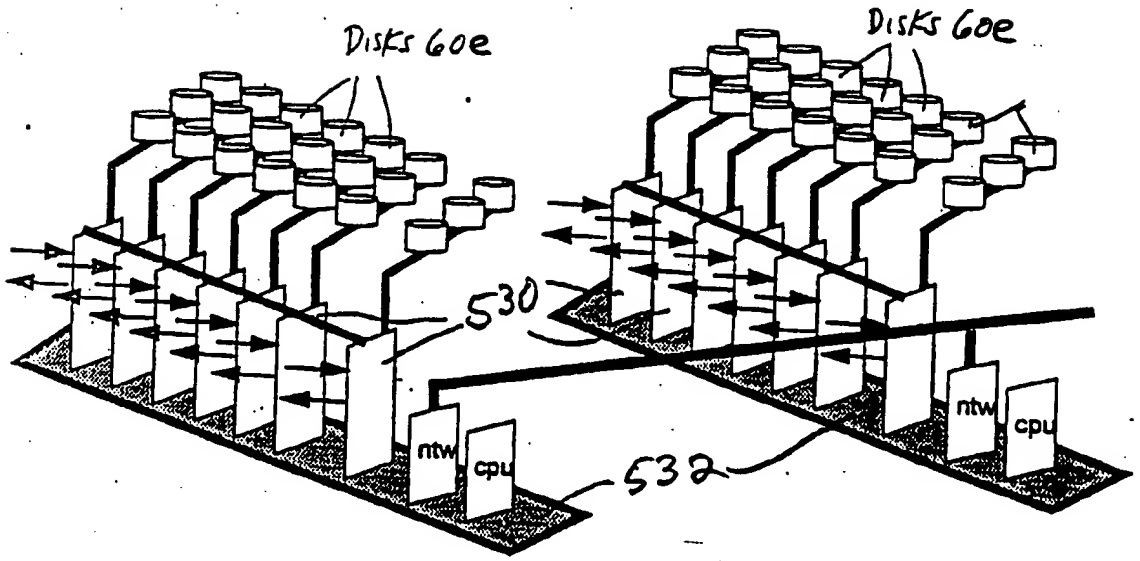


FIGURE 32

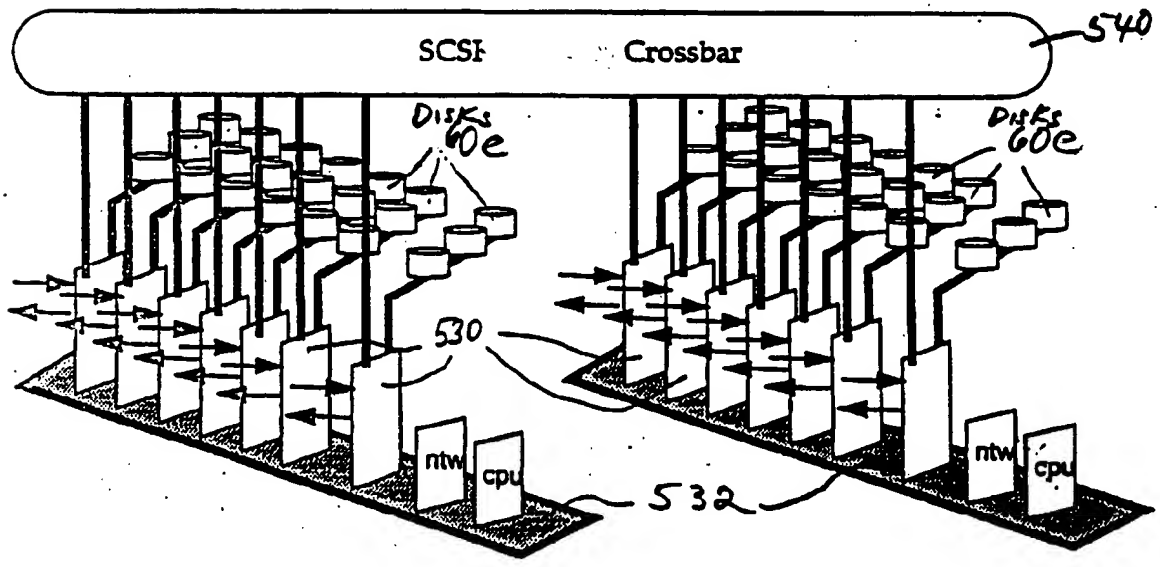


FIGURE 33

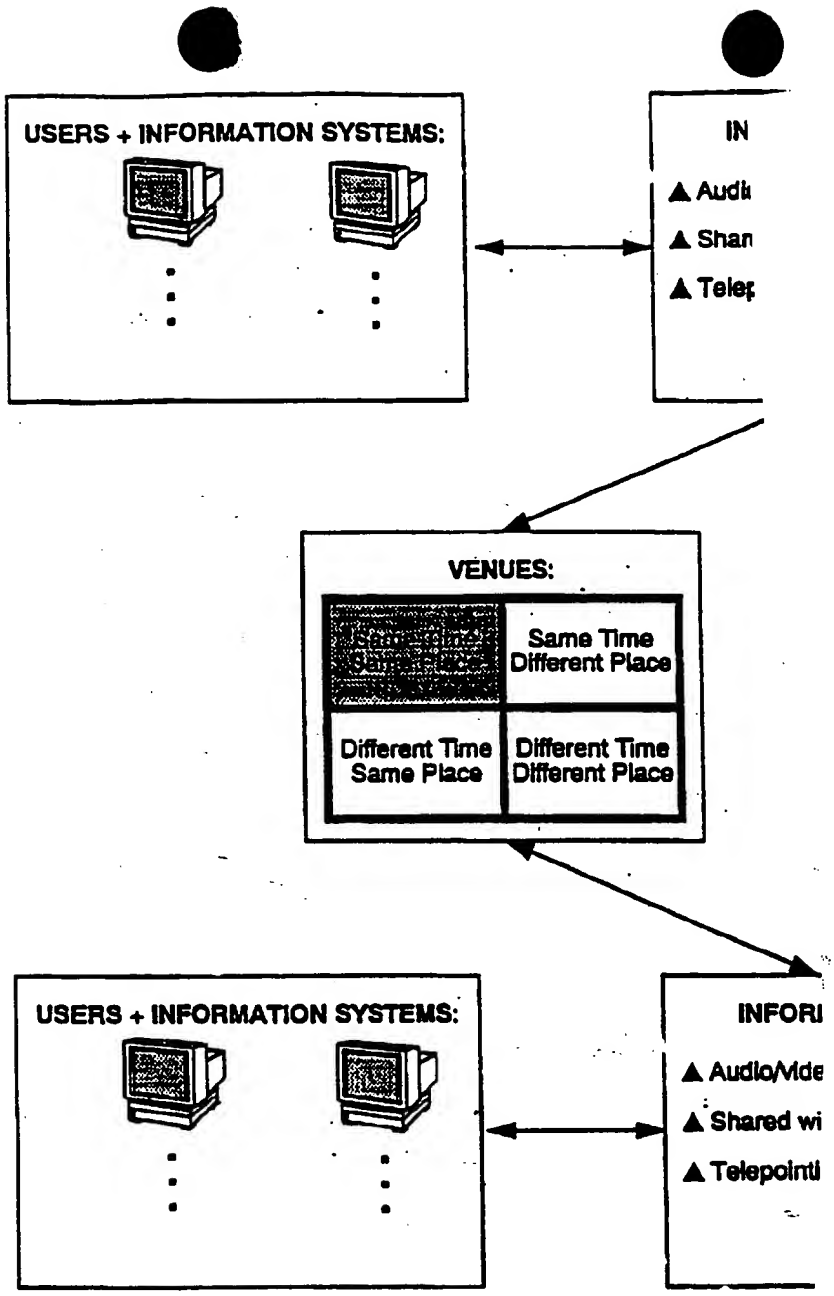

USERS + INFORMATION SYSTEMS:
IN
▲ Audi
▲ Shar
▲ Telep
VENUES:
Same Time
Different Place
Different Time
Same Place
Different Time
Different Place
USERS + INFORMATION SYSTEMS:
INFORI
▲ Audio/Vide
▲ Shared wi
▲ Telepointi

FIGURE 34

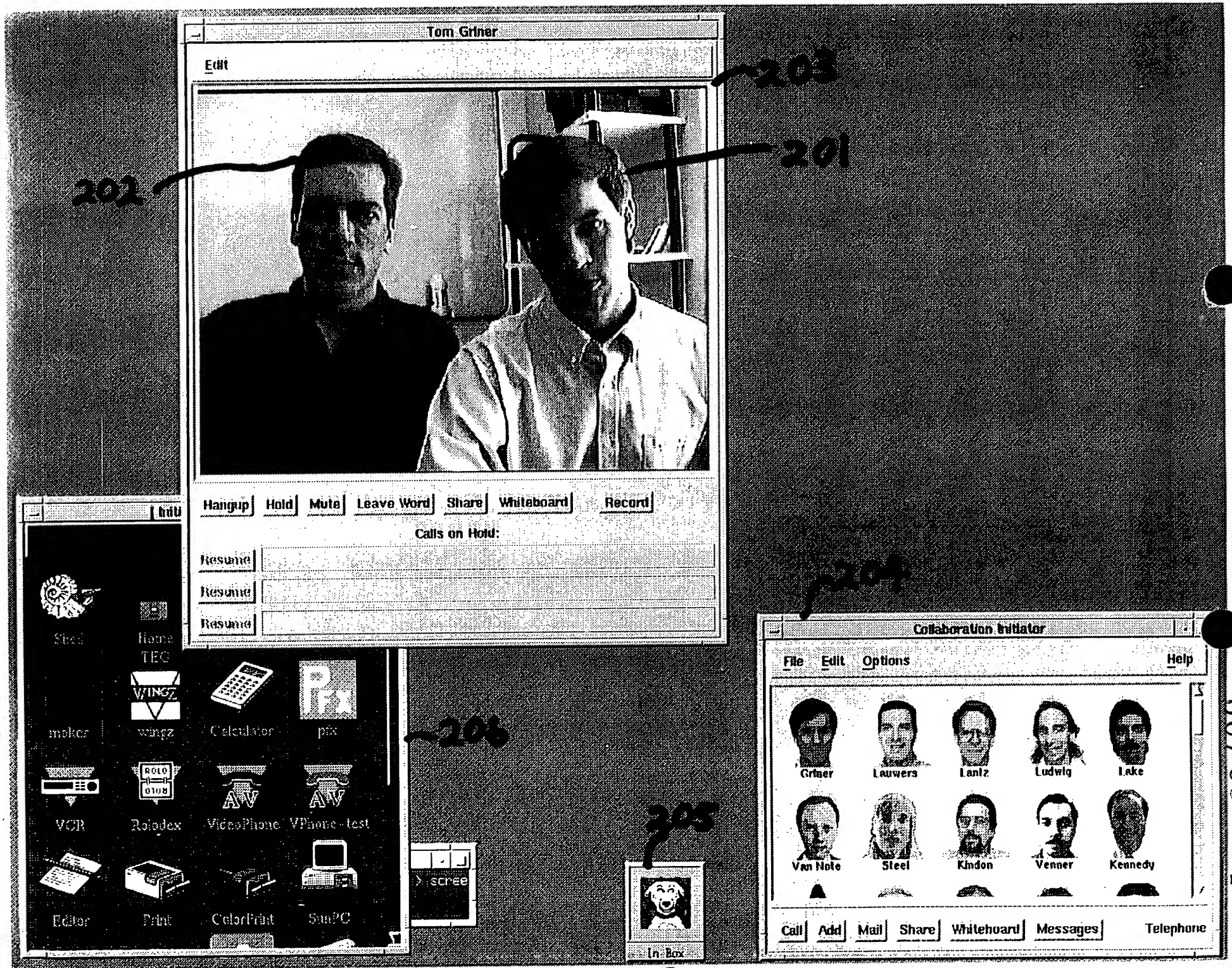


FIGURE 35

08/479,199

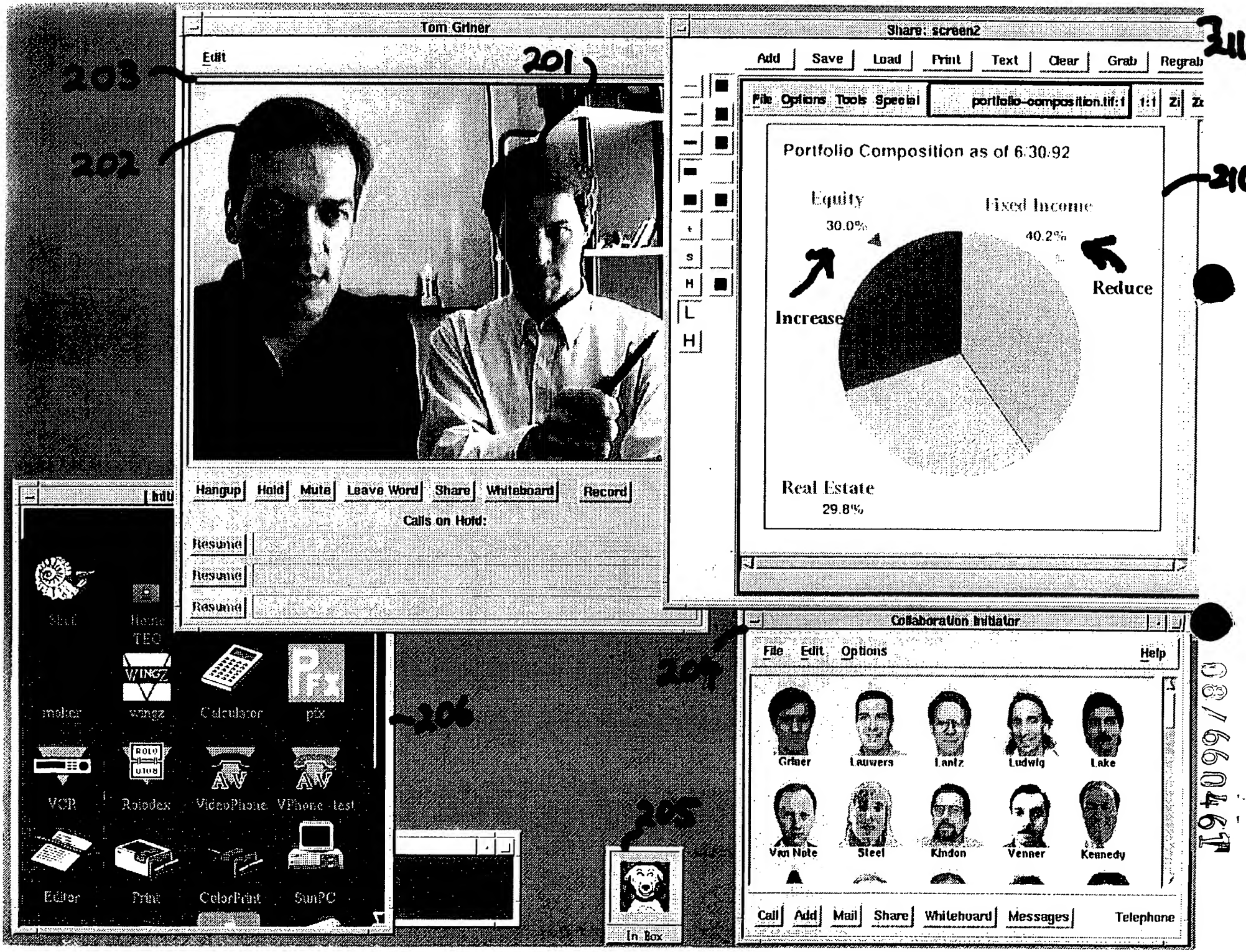


FIGURE 3A

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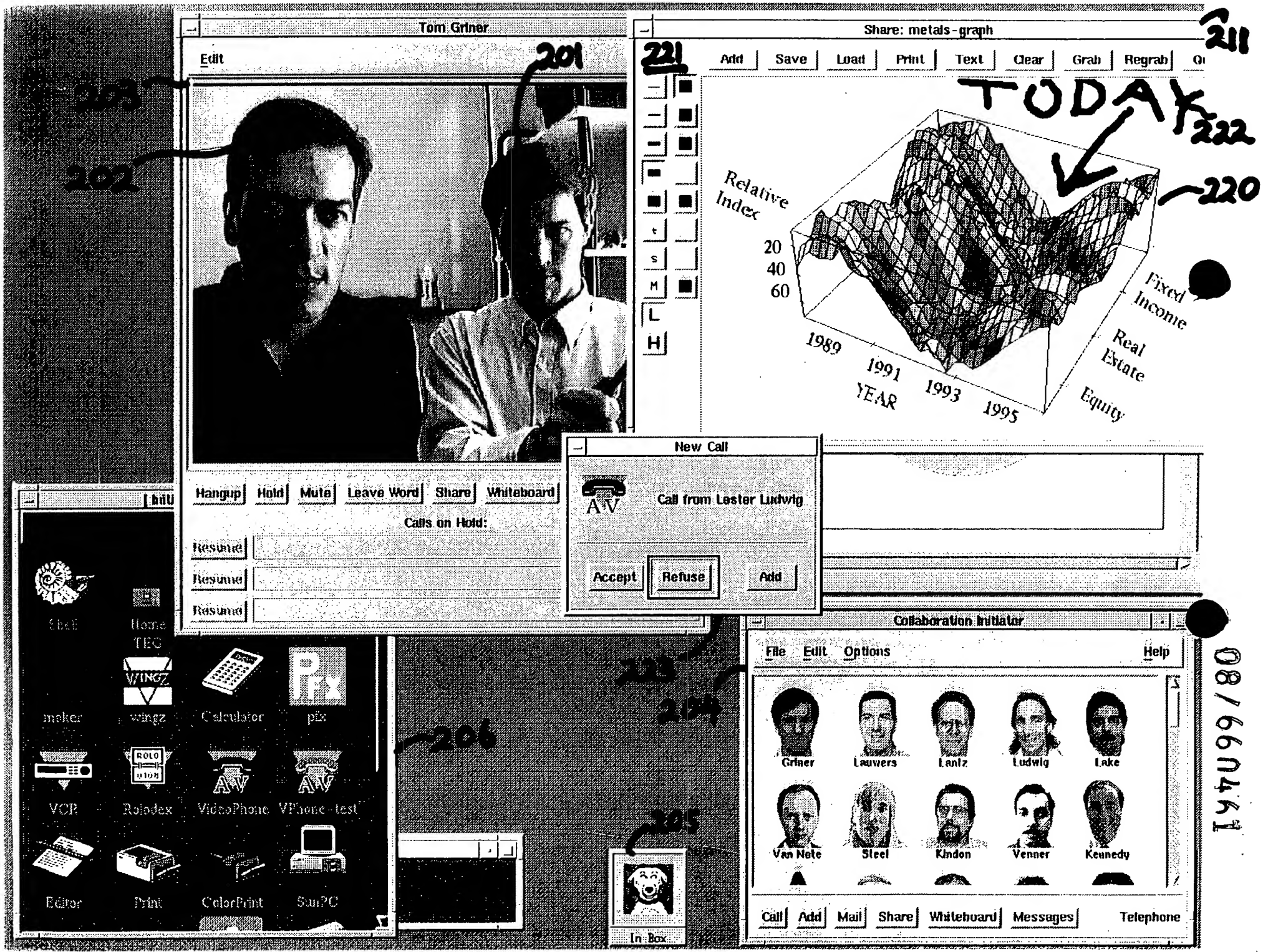
Tom Griner
Edit
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Calls on Hold:
Resume
Resume
Resume
Share: metals-graph
Add
Save
Load
Print
Text
Clear
Grab
Regrab
TODAY
Relative Index
20
40
60
1989
1991
1993
1995
YEAR
Fixed Income
Real Estate
Equity
New Call
Call from Lester Ludwig
Accept
Refuse
Add
Shell
Home TEC
maker
wingz
Calculator
pix
VCR
Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
In Box
Collaboration Initiator
File
Edit
Options
Help
Griner
Lauvers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone
201
202
203
204
205
206
211
220
221
222
223
08/669,441

FIGURE 37

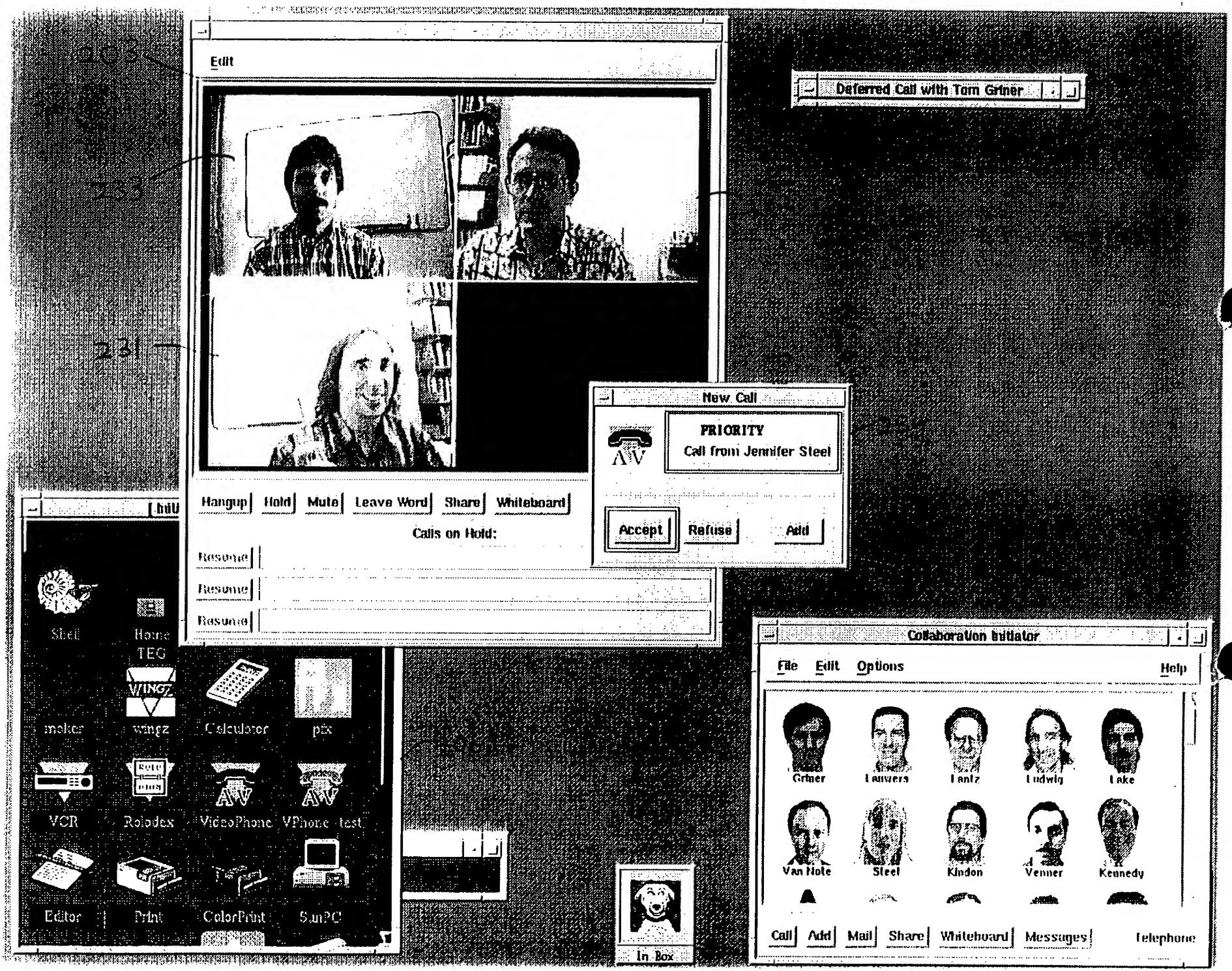

FIGURE 38

08/669,061

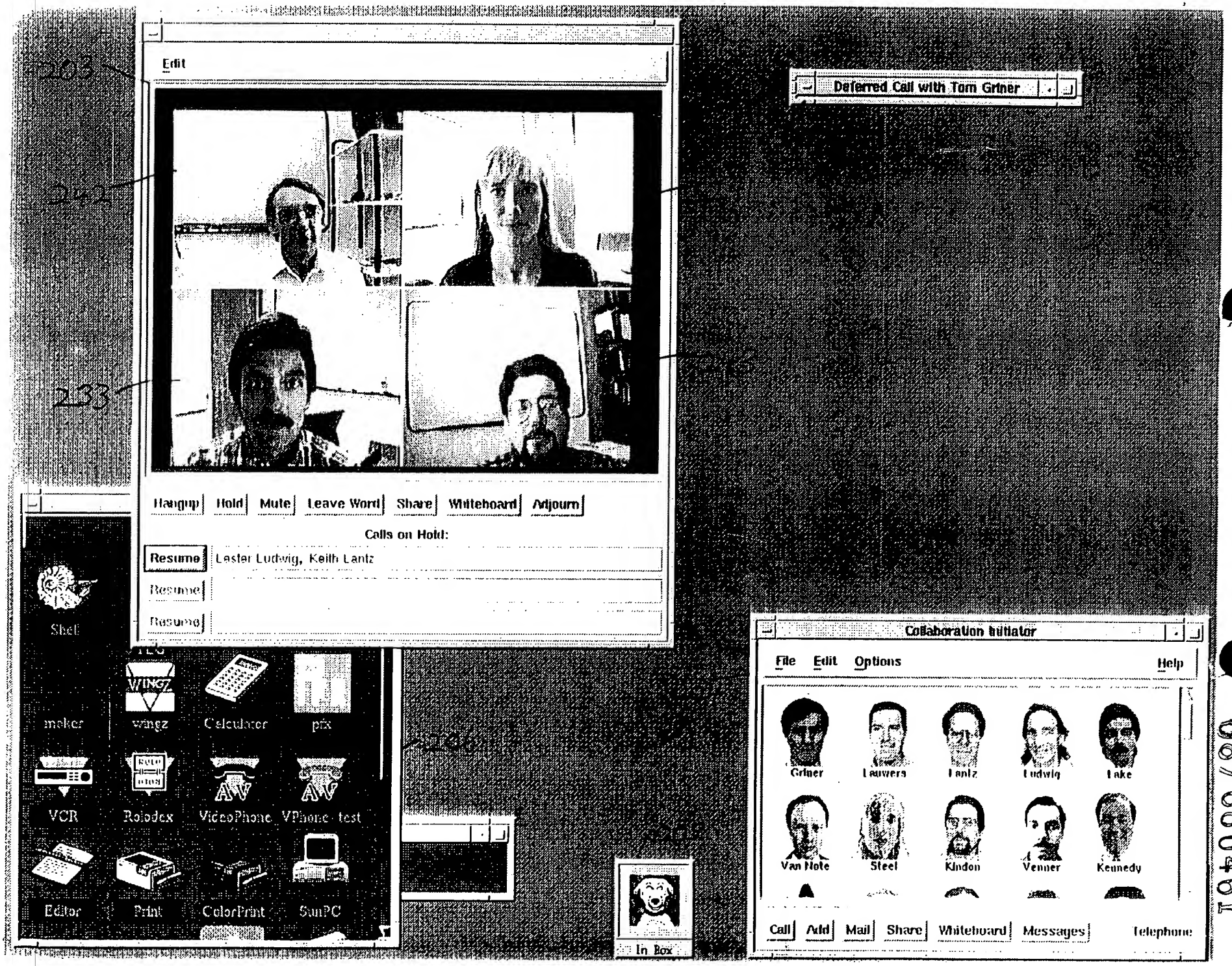

FIGURE 39

08/660467

Edit
Deferred Call with Tom Griner
Share: stdin
Add
Save
Load
Print
Text
Clear
Grab
Regrab
Quit
File Options Tools Special
asset-mix.100dpi.tif:1
1:1
Zi
Zo
OK
NO!
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Calls on Hold:
Resume
Resume
Resume
Shell
Home
TEC
maker
wingz
Calculator
pix
VCR
Rolodex
VideoPhone
VPhone test
Editor
Print
ColorPrint
SunPC
In Box
Collaboration Initiator
File
Edit
Options
Help
Griner
Lauvers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone
233
231
232
211
221
250
251
251
08/069,041

FIGURE 4D

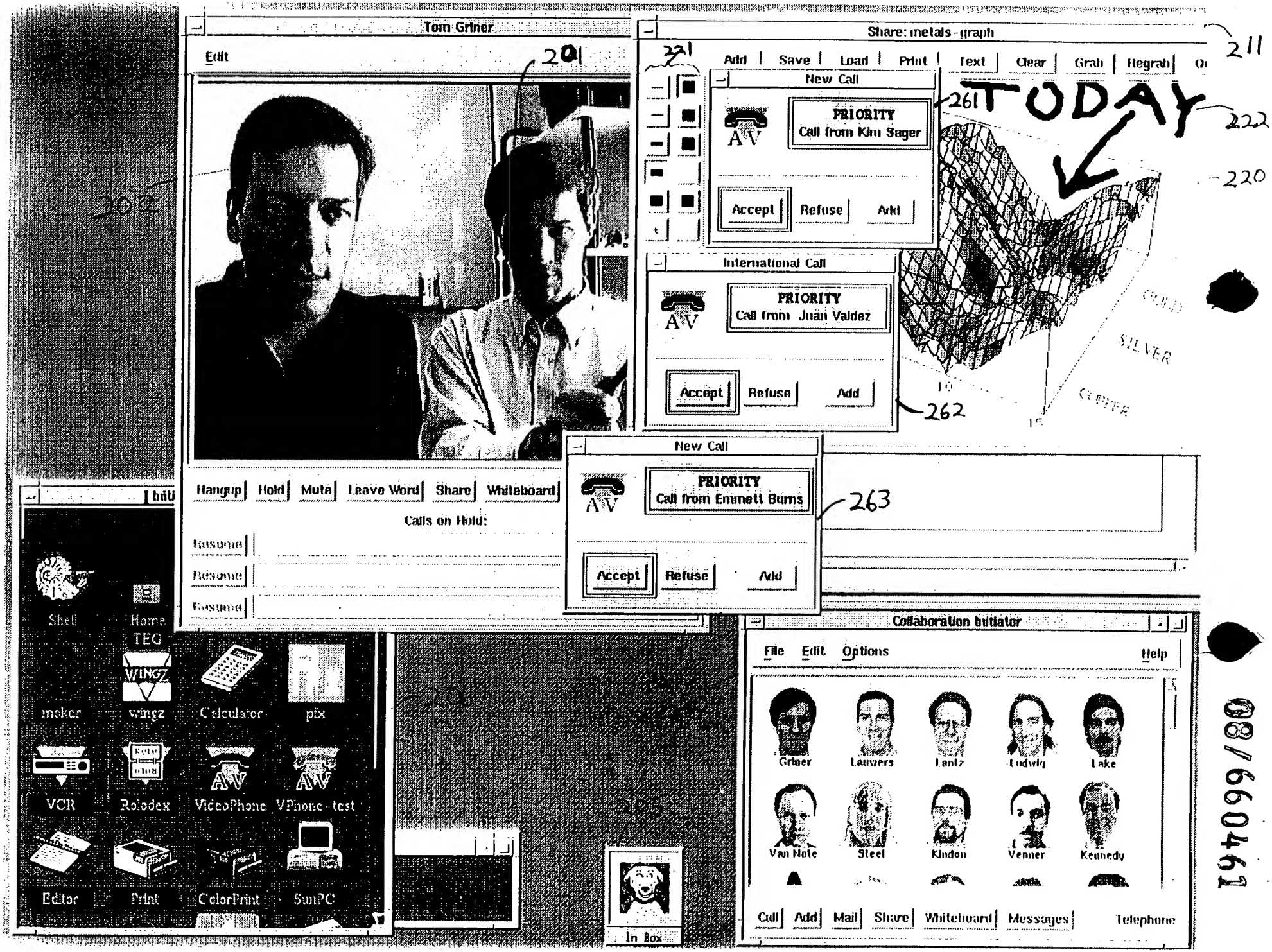
Tom Griner
Edit
201
Share: metals-graph
Add
Save
Load
Print
Text
Clear
Grab
Regrab
211
New Call
PRIORITY
Call from Kim Sager
261
AV
Accept
Refuse
Add
TODAY
222
220
International Call
PRIORITY
Call from Juan Valdez
AV
Accept
Refuse
Add
262
New Call
PRIORITY
Call from Emmett Burns
263
AV
Accept
Refuse
Add
Hangup
Hold
Mute
Leave Word
Share
Whiteboard
Calls on Hold:
Resume
Resume
Resume
Shell
Home TEC
imeker
wingz
Calculator
pix
VCR
Rolodex
VideoPhone
VPhone-test
Editor
Print
ColorPrint
SunPC
In Box
Collaboration Initiator
File
Edit
Options
Help
Griner
Lauvers
Lantz
Ludwig
Lake
Van Note
Steel
Kindon
Venner
Kennedy
Call
Add
Mail
Share
Whiteboard
Messages
Telephone
202
221
08/660461

FIGURE 41

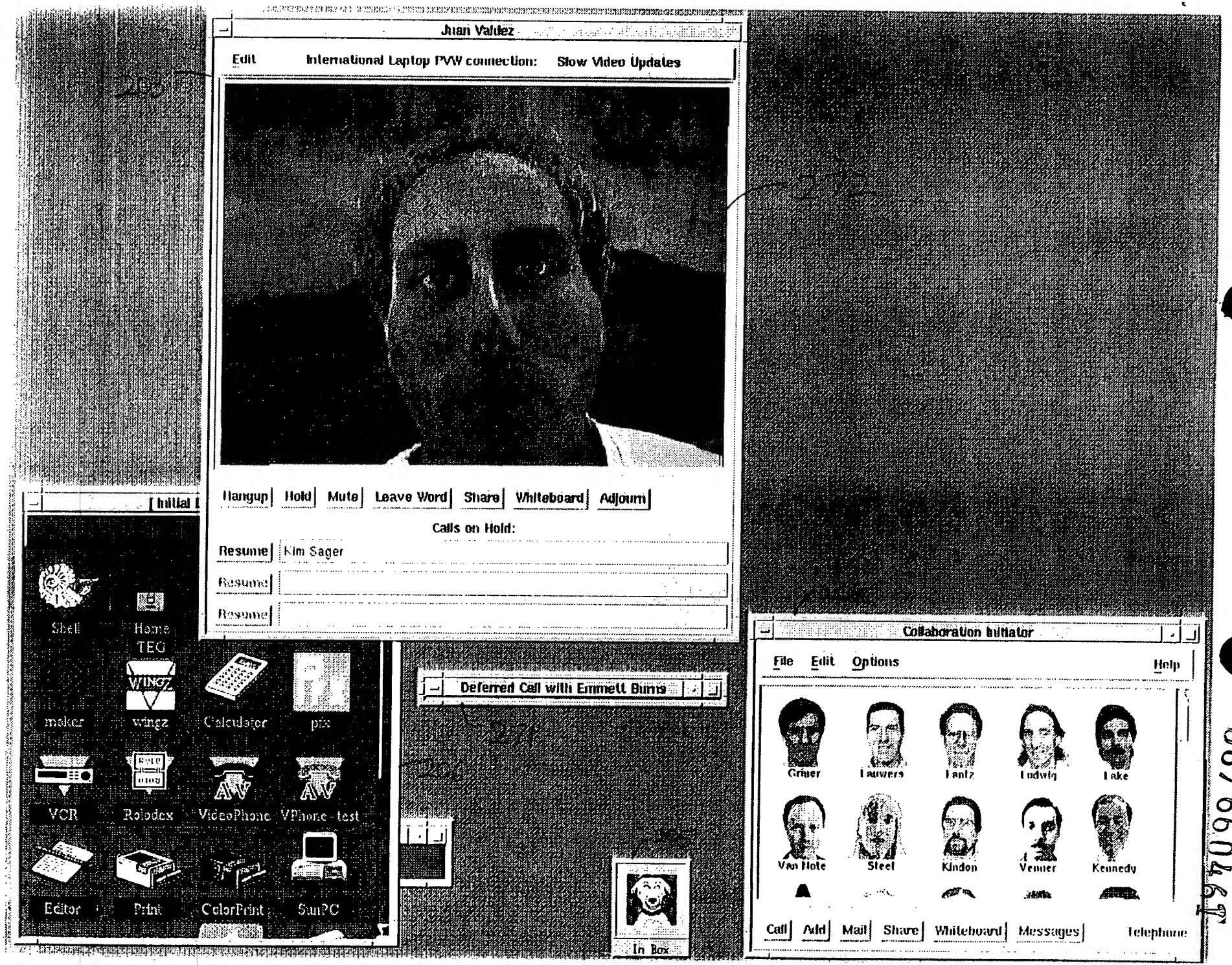

FIGURE 42

08/669,467